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ABSTRACT

The data provided in the statistical tables in this publication are derived from the National Science Foundation's Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1982. The tables present statistics on the characteristics of scientists and engineers employed by institutions of higher education. The tables are presented under the following headings: trends; sex; institutional control and full-time equivalents; institutional rankings; top 100 doctorate-granting institutions; institutional rankings by sex and type of employment; geographic distribution (by control/status, field, full-time/part-time by field, and by status/sex); type of institution; historically black colleges; and institutional categories. Data for scientists/engineers in university-administered, federally-funded research and development centers are presented in tables in a separate section; data are provided by field (1975-1982), for males and females separately by field, and by field (January 1982). Survey summaries are also presented for all institutions and for doctorate-, master's-, and bachelor's-granting institutions, non-science/engineer degree-granting institutions and 2-year institutions, and for federally-funded research and development centers. Copies of instruments used in the survey are included. (JN)

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academic science/ engineering

scientists and engineers january 1982

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detailed statistical tables

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To obtain accurate historical data, use only the latest detailed statistical tables for January 1982 (NSF 83-311) and not data published earlier. Institutions revise prior-year data when important changes occur in reporting practices and program classifications, and only the latest tables incorporate such changes.

general notes

The data presented in this publication are derived from the National Science Foundation's (NSF's) Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1982. A *Science Resources Studies Highlights* analyzing the results of this survey will be published at a later date.

The tables included here present statistics on the characteristics of scientists and engineers employed by institutions of higher education; data from university-administered federally funded research and development centers (FFRDC's) are tabulated separately.

The terms "imputation" and "imputed data" refer to the computerized process of developing estimates of missing information from institutions that did not furnish such statistics when requested. This process develops estimates based primarily on key data items reported in prior years' surveys when available, or when not available, estimates are based on figures derived according to peer respondent institutions' characteristics (based on highest degree granted and type of institutional control—public or private). Corresponding items are increased or decreased to reflect growth or shrinkage experienced by similar peer institutions. In these tabulations the letter "I" is used to identify imputed data and the letter "E" is used when respondent institutions indicated that their data required slight adjustments in order to distribute them consistently.

Every effort was made to maintain close contact with respondents to preserve the consistency and continuity of the resultant data. The completed 1982 questionnaires were carefully examined upon receipt by NSF. A computerized facsimile of the survey form was then prepared for each institution, depicting a 2-year comparison of its responses including the current-year's data, and noting substantive disparities, if any. The facsimiles were mailed to all doctorate- and master's-granting institutions and to all other institutions whose data required corrections so that updating could be accomplished before the final processing and tabulation by the contractor.

Data presented in trend tables are assembled from the most recently completed survey cycle. Since prior-year data are reviewed for consistency with current-year responses and, when necessary, revised in consultation with institutional respondents, reference to prior-year data should be restricted to this document.

Employment data for the years prior to 1982 are understated because errors were found by the University of California System (UC) in its past reporting practices. According to UC officials, the understated data refer to the numbers of total scientists and engineers, total full-time equivalents, and full-time equivalents engaged in research and development. Because procedures for compiling employment data for UC's scientists and engineers were revised, the numbers reported for the January 1982 survey cycle increased considerably over those reported in earlier years. As these NSF Detailed Statistical Tables go to press, no method for revising the earlier UC data has yet been devised. The extent of UC's revisions is sufficient to affect national totals for some of the data elements, particularly full-time equivalent (FTE) data, and therefore NSF has chosen not to publish any trend data for full-time equivalents at this time. The impact on total headcount data, however, is smaller and should not significantly affect comparisons of employment patterns. Revisions to UC historical data will be incorporated in the NSF Detailed Statistical Tables reflecting the January 1983 cycle that will be published in 1984.

The category "doctorate-granting institutions" is used in this report in reference to two groupings of universities. The first is based on the conventional degree-level distinction—doctorate, master's, bachelor's, and no science/engineering degree. Most of the data on doctorate-granting institutions shown in this report are distributed using this conventional classification system. A second system developed by the National Center for Education Statistics (NCES), and appearing in this report for the first time, uses the "doctorate-granting institutions" category in reference to institutions characterized by a significant emphasis on doctorate-level education, or determined by the number of doctorate recipients and the diversity in doctorate-program offerings. The number of institutions included under the conventional "doctorate-granting" category is 326; the number included under the NCES category is 165.

Four additional categories of institutions appear in the NCES classification system: "Comprehensive," "general baccalaureate," "professional and specialized," and "2-year." "Comprehensive" institutions are characterized by a strong, diverse post-baccalaureate program but are not typically involved in doctorate-level education. "General baccalaureate" institutions are primarily engaged in general undergraduate, baccalaureate education. "Professional and specialized" institutions may be baccalaureate or postbaccalaureate and are characterized by a significant level of specialization in one area, usually a professional field such as business or engineering. "Professional and specialized" schools are listed as one of the following: Dentistry; medical; other health; engineering; business and management; art, music and design; law; education; U.S. service; and other specialized or professional. "Two-year" institutions confer over three-fourths of their degrees for two years of study.

See section A, technical notes, for a detailed description of the survey universe, methodology, and limitations of the data; section B for the statistical tables; section C for the survey summary data; section D for the university-administered FFRDC's; and section E for reproductions of the cover letter, questionnaire, and instructions.

Requests for additional information concerning the survey findings and for data tapes for the 1981 and prior survey years should be directed to Ms. Judith F. Coakley or Ms. Esther Gist at the following address:

Universities and Nonprofit
Institutions Studies Group
Division of Science Resources
Studies
National Science Foundation
Washington, D.C. 20550
(202) 634-4673

section a

technical notes

scope of survey

This survey covers professional employment of scientists and engineers at all academic institutions with at least one science or engineering program. Survey questionnaires were mailed in January 1982 to more than 2,000 institutions of higher education and university-administered federally funded research and development centers (FFRDC's). To qualify as an FFRDC, the center must be engaged in basic or applied research, development, or management of research and development (R&D) activities, monitored directly by the Federal Government, usually by a single agency; this relationship is expected to be maintained on a long-term basis. An FFRDC must operate separately from its administrative organization or be incorporated separately. With an average annual budget of at least $500,000 for operating expenses and capital equipment, 70 percent of which is Federal support, the center's facilities are owned or funded under contract by the Federal Government.

The survey universe included all institutions of higher education, including 2-year institutions, that were identified by the National Science Foundation (NSF) as offering science and engineering (S/E) degree-credit courses. The survey excluded schools of art, music, law, and theology, and all others that do not employ scientists or engineers.

The survey population was reviewed prior to the mailout of the questionnaires to ensure that each institutional classification was accurate. Characteristics of the schools were reviewed before and during the course of the survey to determine if changes had occurred (i.e., reviewed for changes in highest degree granted or for school openings, closings, or mergers). Names of institutions newly added to the *Education Directory, Colleges and Universities, 1981-82*[1] were reviewed to determine their eligibility for inclusion in this survey.

At the time of survey close-out in mid-August 1982, 2,200 universities and colleges and 19 university-associated FFRDC's constituted the universe. Of these 2,200 institutions, 1,344, or 61 percent, responded, compared with a 60-percent response rate in 1981. Table A-1 shows the distribution of responses by degree level of the institutions surveyed. Estimates for nonrespondent institutions represented approximately 22 percent of the total number of scientists and engineers employed in higher education institutions. Response rates for 2-year institutions and all other institutions that do not award an S/E degree are included with totals from bachelor's degree-granting institutions. Of the doctorate-granting institutions surveyed, 89 percent responded, about the same rate as in the 1981 survey. These 326 doctorate-granting institutions accounted for approximately two-thirds of all academic scientists and engineers. The response rate for master's-granting institutions, 64 percent, was down 10 percentage points compared to 1981, but the category of bachelor's- and no-S/E-degree institutions rose 4 percentage points to 55 percent. This improved response rate can be attributed to improved communication with previously nonrespondent institutions.

Table A-1. Science/engineering (S/E) personnel survey response rates by type of institution: January 1982

Type of institution	Number surveyed	Number of respondents	Percent of total
Total	2,200	1,344	61.1
Doctorate	326	290	89.0
Master's	318	204	64.2
Bachelor's and no S/E degree	1,556	850	54.6

SOURCE: National Science Foundation

survey items

The questionnaire used in the January 1982 survey was basically unchanged from that used in 1981 except for the addition

[1] Department of Education, National Center for Education Statistics. *Education Directory, Colleges and Universities, 1981-82* (NCES 82-306) (Washington, D.C.: Supt. of Documents, U.S. Government Printing Office).

of a new block in the "remarks" section requesting the number of person-hours required to complete the form. Two columns in item 3 were deleted from the questionnaire to eliminate repetition of information collected in item 2. A "crosswalk" was added to assist respondents in matching the S/E fields referred to in this survey with the field codes devised by the National Center for Education Statistics (NCES), of the Department of Education, and published in *A Classification of Instructional Programs* (NCES 81-323). Most institutions have incorporated the essential information to complete this survey into their recordkeeping systems, and a consistent format from one year to the next is preferred by respondents. Such consistency yields more useful statistics over time.

The survey questionnaire consisted of three main items: Item 1 requested headcount data on the number of scientists and engineers by highest earned degree. Item 2 collected headcount data by detailed field of science/engineering, sex, and employment status (full- or part-time). Item 3 requested information on total full-time equivalents by detailed field of science/engineering as well as full-time equivalents engaged in research and development.

In the interest of improving the data quality and as an aid to institution personnel responsible for completing NSF's annual survey questionnaires, 1-day workshops are held periodically in various geographic locations prior to the mailout date. The workshops serve as a forum in which to discuss survey forms and methods used to gather information from institutions' personnel records. These workshops, sponsored by volunteer respondent institutions or professional societies, are conducted by NSF staff assisted by institutional representatives experienced in survey completion.

estimates for nonresponse

In order to derive universe estimates of all employment data presented in this report, estimates were made for institutions that failed to respond to the survey. Imputed data for individual institutions were based primarily on key items reported (or estimated) in earlier surveys. Totals for these institutions were inflated or deflated according to overall rates of fluctuations for institutions at the same degree level and under the same type of control (public or private). Detailed imputations were then made on the basis of distributions computed for similar institutions. The estimating process, referred to as "imputation," has been used consistently since 1977.

The combined imputed and estimated amounts totaled about 76,500 scientists and engineers employed by academic institutions, or 22 percent of the 348,800 universe total. This compared to an 18-percent imputation rate in 1981. Table A-2 shows imputed and estimated amounts for the 1982 survey by field, employment status, and type of activity. Imputation rates genrally increased across all major fields. The highest imputation rates occurred for psychologists and mathematical/computer scientists, about 27 percent and

Table A-2. Science/engineering personnel survey imputed and estimated amounts by field, employment status, and activity: January 1982

Disciplines	Total	Full time	Part time	Total equivalents (FTE's)[1]	FTE's devoted to separately budgeted R&D activities
Scientists and engineers, total	76,508	53,957	24,061	82,899	13,041
Engineers, total	5,751	3,620		6,767	2,077
Aeronautical/astronautical engineers	131	78	53	184	140
Chemical engineers	228	173	55	297	96
Civil engineers	1,069	678	391	1,196	146
Electrical engineers	1,752	1,066	686	1,876	854
Mechanical engineers	1,313	884	429	1,441	272
Other engineers	1,469	873	596	1,779	546
Physical scientists, total	7,512	5,595	1,917	8,467	1,721
Astronomers	186	126	60	196	78
Chemists	4,540	3,474	1,063	4,836	949
Physicists	2,603	2,037	566	2,995	524
Other physical scientists	574	346	228	516	136
Environmental scientists, total	1,617	1,227	390	1,763	405
Atmospheric scientists	115	87	28	106	59
Earth scientists	1,160	912	248	1,283	188
Oceanographers	150	114	36	148	87
Other environmental scientists	237	155	82	227	70
Mathematical/computer scientists, total	10,372	6,047	4,325	10,012	614
Mathematicians	7,997	4,792	3,221	7,635	397
Computer scientists	2,375	1,255	1,126	2,331	216
Life scientists, total	23,848	17,035	6,813	25,126	6,106
Agricultural scientists	1,224	897	327	1,735	535
Biological scientists	8,650	6,713	1,937	9,231	2,532
Medical scientists	11,875	7,693	4,182	12,613	2,847
Other life scientists	988	720	287	1,817	192
Psychologists, total	6,274	3,864	2,410	6,073	328
Social scientists, total	12,750	8,116	4,634	12,630	771
Economists	3,205	1,937	1,268	3,151	222
Political scientists	2,799	1,978	821	2,857	141
Sociologists	3,942	2,450	1,492	3,791	195
Other social scientists	2,843	1,781	1,081	2,775	214

[1] Full-time equivalents.

SOURCE: National Science Foundation

25 percent, respectively, each up by one percentage point over 1981 rates (table A-3). The lowest imputation rate, engineers at 16 percent, was also slightly higher than the 1981 rate.

The imputation rate for total full-time equivalent (FTE) scientists and engineers engaged in separately budgeted R&D activities rose 3 percentage points in 1982, to 22 percent, accounting for 13,000 out of the 60,000 total (table A-3). This rate, however, represents considerable improvement over rates prior to 1981.

For detailed studies of individual institutional responses, the reader should obtain the January 1982 data tapes by requesting a *Data User Guide* from J. G. Huckenpahler, at the same address as indicated in the general notes, or refer to tables in section B beginning with table B-30.

Table A-3. Science/engineering (S/E) personnel survey imputed and estimated amounts by field: January 1982

Disciplines	All S/E employment			Full-time equivalents devoted to R&D activities		
	Total	Amount imputed and/or estimated	Percent of total	Total	Amount imputed and/or estimated	Percent of total
Total	348,771	76,508	21.9	59,965	13,041	21.7
Engineers	36,419	5,751	15.8	6,774	2,077	30.7
Physical scientists	34,377	7,512	21.8	7,361	1,721	23.4
Environmental scientists	10,059	1,617	16.1	3,004	405	13.5
Mathematical/computer scientists	42,139	10,372	24.6	2,185	614	28.1
Life scientists	146,236	23,848	16.3	35,535	6,106	17.2
Psychologists	23,664	6,274	26.5	1,500	328	21.9
Social scientists	55,877	12,750	22.8	3,604	771	21.4

SOURCE: National Science Foundation

section b

statistical tables

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TABLE B-1. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND STATUS: SELECTED YEARS

FIELD OF EMPLOYMENT AND STATUS	1967	1969	1971	1973	1975	1977	1978	1980	1981	1982
ALL FIELDS	212,855	231,756	257,904	264,887	278,919	297,739	307,637	324,103	334,317	348,771
FULL TIME	170,557	187,082	209,416	216,424	223,336	236,174	242,066	254,870	259,544	267,063
PART TIME	42,298	44,674	48,488	48,463	55,583	61,565	65,571	69,233	74,773	81,708
ENGINEERS	25,253	25,387	27,130	27,530	27,919	30,083	30,997	33,737	34,830	36,419
FULL TIME	20,983	21,431	23,039	23,485	22,580	24,105	24,666	26,472	27,006	28,049
PART TIME	4,270	3,956	4,091	4,045	5,339	5,978	6,331	7,265	7,824	8,370
PHYSICAL SCIENTISTS	26,243	28,149	29,443	30,210	30,836	32,120	32,839	33,554	34,071	34,377
FULL TIME	23,361	25,040	26,346	26,666	26,662	27,553	27,902	27,993	28,180	28,505
PART TIME	2,882	3,109	3,097	3,544	4,174	4,567	4,937	5,561	5,891	5,872
ENVIRONMENTAL SCIENTISTS	5,111	5,549	6,500	6,934	7,855	9,220	9,498	9,814	10,041	10,059
FULL TIME	4,294	4,935	5,752	6,091	6,787	7,971	8,181	8,333	8,563	8,568
PART TIME	817	614	748	843	1,068	1,249	1,317	1,481	1,478	1,491
MATHEMATICAL AND COMPUTER SCIENTISTS	17,776	22,495	24,548	24,770	28,475	31,996	33,034	35,957	38,987	42,139
FULL TIME	14,397	18,390	20,282	20,794	22,404	23,870	24,349	26,030	27,128	28,322
PART TIME	3,379	4,105	4,266	3,976	6,071	8,126	8,685	9,927	11,859	13,817
LIFE SCIENTISTS	87,347	97,206	110,274	112,352	113,466	117,441	122,956	133,702	137,777	146,236
FULL TIME	66,620	74,882	85,907	88,418	90,684	94,306	97,726	108,155	110,562	115,214
PART TIME	20,727	22,324	24,367	23,934	22,782	23,135	25,230	25,547	27,215	31,022
PSYCHOLOGISTS	11,358	14,780	16,806	18,876	21,649	23,699	23,752	23,257	23,363	23,664
FULL TIME	8,554	11,536	12,994	14,777	15,973	17,307	17,406	16,733	16,837	16,767
PART TIME	2,804	3,244	3,812	4,099	5,676	6,392	6,346	6,524	6,526	6,897
SOCIAL SCIENTISTS	39,767	38,190	43,203	44,215	48,719	53,180	54,561	54,082	55,248	55,877
FULL TIME	32,348	30,868	35,096	36,193	38,246	41,062	41,836	41,154	41,268	41,638
PART TIME	7,419	7,322	8,107	8,022	10,473	12,118	12,725	12,928	13,980	14,239

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-2. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY TYPE OF INSTITUTION AND STATUS: SELECTED YEARS

TYPE OF INSTITUTION AND STATUS	1967	1969	1971	1973	1975	1977	1978	1980	1981	1982
ALL INSTITUTIONS	212,855	231,756	257,904	264,887	278,919	297,739	307,637	324,103	334,317	348,771
FULL TIME	170,557	187,082	209,416	216,424	223,336	236,174	242,066	254,870	259,544	267,063
PART TIME	42,298	44,674	48,488	48,463	55,583	61,565	65,571	69,233	74,773	81,708
INSTITUTIONS GRANTING:										
DOCTORATE IN S&E	142,676	154,424	171,238	174,474	180,330	193,087	200,246	217,875	223,712	231,828
FULL TIME	114,446	124,604	140,339	143,393	148,096	159,744	164,628	179,655	183,055	188,102
PART TIME	28,230	29,820	30,899	31,081	32,234	33,343	35,618	38,220	40,657	43,726
MASTER'S IN S&E	24,729	29,441	30,080	28,703	34,075	34,790	38,628	37,362	37,821	38,612
FULL TIME	20,748	25,212	25,597	24,851	27,511	27,118	29,395	27,915	27,908	28,559
PART TIME	3,981	4,229	4,483	3,852	6,564	7,672	9,233	9,447	9,913	10,053
BACHELOR'S IN S&E	23,025	21,690	23,198	28,363	27,113	27,411	26,222	26,830	27,593	28,793
FULL TIME	19,328	17,927	19,623	23,620	22,406	22,437	21,165	20,784	21,214	21,624
PART TIME	3,697	3,763	3,575	4,743	4,707	4,974	5,057	6,046	6,379	7,169
NONSCIENCE DEGREES 1/	22,425	26,201	33,388	1,348	1,345	607	858	842	916	687
FULL TIME	16,035	19,339	23,857	812	828	467	705	680	708	579
PART TIME	6,390	6,862	9,531	536	517	140	153	162	208	108
2-YEAR INSTITUTIONS	-	-	-	31,999	36,056	41,844	41,683	41,194	44,275	48,851
FULL TIME	-	-	-	23,748	24,495	26,408	26,173	25,836	26,659	28,199
PART TIME	-	-	-	8,251	11,561	15,436	15,510	15,358	17,616	20,652

1/ DATA FOR 1967 THROUGH 1971 INCLUDE 2-YEAR INSTITUTIONS AS WELL AS INSTITUTIONS AWARDING DEGREES IN NONSCIENCE FIELDS.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-3. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	278,919	288,213	297,739	307,637	324,103	334,317	348,771
ENGINEERS	27,919	28,495	30,083	30,997	33,737	34,830	36,419
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,094	1,133	1,144	1,132	1,407	1,262	1,323
CHEMICAL ENGINEERS	1,864	1,861	1,924	1,999	2,352	2,283	2,284
CIVIL ENGINEERS	4,877	5,032	5,161	5,366	5,529	5,717	6,100
ELECTRICAL ENGINEERS	6,767	6,932	6,929	7,199	8,154	8,584	9,024
MECHANICAL ENGINEERS	5,298	5,302	5,490	5,651	6,074	6,323	6,652
OTHER ENGINEERS	8,019	8,235	9,435	9,650	10,221	10,661	11,036
PHYSICAL SCIENTISTS	30,836	31,427	32,120	32,839	33,554	34,071	34,377
ASTRONOMERS 2/	-	-	-	-	955	1,065	1,257
CHEMISTS	16,150	16,581	17,120	17,664	17,614	18,089	18,161
PHYSICISTS	12,323	12,198	12,482	12,778	13,007	12,914	12,984
OTHER PHYSICAL SCIENTISTS	2,363	2,648	2,518	2,397	1,978	2,003	1,975
ENVIRONMENTAL SCIENTISTS	7,855	8,457	9,220	9,498	9,814	10,041	10,059
ATMOSPHERIC SCIENTISTS	682	720	785	962	943	918	885
EARTH SCIENTISTS	5,998	6,494	6,945	6,987	6,569	6,634	6,680
OCEANOGRAPHERS	1,175	1,243	1,490	1,549	1,538	1,609	1,523
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	764	880	971
MATHEMATICAL AND COMPUTER SCIENTISTS	28,475	29,916	31,996	33,034	35,957	38,987	42,139
MATHEMATICIANS	23,368	24,137	25,439	25,993	27,079	28,580	29,883
COMPUTER SCIENTISTS	5,107	5,779	6,557	7,041	8,878	10,407	12,256
LIFE SCIENTISTS	113,466	114,582	117,441	122,956	133,702	137,777	146,236
AGRICULTURAL SCIENTISTS	14,287	14,181	14,362	15,022	15,899	16,128	16,499
BIOLOGICAL SCIENTISTS	38,173	40,025	42,618	43,597	44,803	46,356	46,778
MEDICAL SCIENTISTS	61,006	60,376	60,461	64,337	67,116	68,636	73,515
OTHER LIFE SCIENTISTS 2/	-	-	-	-	5,884	6,657	9,444
PSYCHOLOGISTS	21,649	22,925	23,699	23,752	23,257	23,363	23,664
SOCIAL SCIENTISTS	48,719	52,411	53,180	54,561	54,082	55,248	55,877
ECONOMISTS	12,655	13,133	13,865	14,087	14,672	15,079	15,394
POLITICAL SCIENTISTS	10,553	11,343	11,216	11,352	11,194	11,568	11,846
SOCIOLOGISTS	14,234	15,182	15,538	15,409	14,501	14,695	14,658
OTHER SOCIAL SCIENTISTS	11,277	12,753	12,561	13,713	13,715	13,906	13,979

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-4. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	223,336	229,787	236,174	242,066	254,870	259,544	267,063
ENGINEERS	22,580	22,924	24,105	24,666	26,472	27,006	28,049
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	944	966	968	964	1,144	1,057	1,083
CHEMICAL ENGINEERS	1,603	1,638	1,684	1,725	1,886	1,902	1,911
CIVIL ENGINEERS	3,832	4,015	4,111	4,240	4,325	4,447	4,736
ELECTRICAL ENGINEERS	5,392	5,405	5,463	5,593	6,374	6,519	6,811
MECHANICAL ENGINEERS	4,355	4,346	4,467	4,532	4,817	4,932	5,094
OTHER ENGINEERS	6,453	6,554	7,412	7,612	7,926	8,149	8,414
PHYSICAL SCIENTISTS	26,662	27,086	27,553	27,902	27,993	28,180	28,505
ASTRONOMERS 2/	-	-	-	-	818	900	1,060
CHEMISTS	13,823	14,140	14,471	14,736	14,330	14,767	14,800
PHYSICISTS	10,940	10,822	11,056	11,254	11,323	11,010	11,154
OTHER PHYSICAL SCIENTISTS	1,899	2,124	2,026	1,912	1,522	1,503	1,491
ENVIRONMENTAL SCIENTISTS	6,787	7,258	7,971	8,181	8,333	8,563	8,568
ATMOSPHERIC SCIENTISTS	559	602	692	821	793	763	761
EARTH SCIENTISTS	5,172	5,527	5,914	5,963	5,554	5,638	5,670
OCEANOGRAPHERS	1,056	1,129	1,365	1,397	1,385	1,467	1,394
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	601	695	743
MATHEMATICAL AND COMPUTER SCIENTISTS	22,404	23,125	23,870	24,349	26,030	27,128	28,322
MATHEMATICIANS	18,699	18,993	19,287	19,564	19,914	20,234	20,559
COMPUTER SCIENTISTS	3,705	4,132	4,583	4,785	6,116	6,894	7,763
LIFE SCIENTISTS	90,684	91,857	94,306	97,726	108,155	110,562	115,214
AGRICULTURAL SCIENTISTS	13,235	12,941	13,065	13,704	14,440	14,567	14,716
BIOLOGICAL SCIENTISTS	33,462	34,891	36,875	37,661	38,714	39,918	40,175
MEDICAL SCIENTISTS	43,987	44,025	44,366	46,361	50,316	50,839	53,009
OTHER LIFE SCIENTISTS 2/	-	-	-	-	4,685	5,238	7,314
PSYCHOLOGISTS	15,973	16,787	17,307	17,406	16,733	16,837	16,767
SOCIAL SCIENTISTS	38,246	40,750	41,062	41,836	41,154	41,268	41,638
ECONOMISTS	10,169	10,369	10,695	10,854	11,092	11,232	11,402
POLITICAL SCIENTISTS	8,687	9,065	9,004	9,055	8,767	8,995	9,187
SOCIOLOGISTS	10,744	11,425	11,674	11,502	10,860	10,752	10,779
OTHER SOCIAL SCIENTISTS	8,646	9,891	9,689	10,425	10,435	10,289	10,270

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-5. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	55,583	58,426	61,565	65,571	69,233	74,773	81,708
ENGINEERS	5,339	5,571	5,978	6,331	7,265	7,824	8,370
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	150	167	176	168	263	205	240
CHEMICAL ENGINEERS	261	223	240	274	466	381	373
CIVIL ENGINEERS	1,045	1,017	1,050	1,126	1,204	1,270	1,364
ELECTRICAL ENGINEERS	1,374	1,527	1,466	1,606	1,780	2,065	2,213
MECHANICAL ENGINEERS	943	956	1,023	1,119	1,257	1,391	1,558
OTHER ENGINEERS	1,566	1,681	2,023	2,038	2,295	2,512	2,622
PHYSICAL SCIENTISTS	4,174	4,341	4,567	4,937	5,561	5,891	5,872
ASTRONOMERS 2/	-	-	-	-	137	165	197
CHEMISTS	2,327	2,441	2,649	2,928	3,284	3,322	3,361
PHYSICISTS	1,383	1,376	1,426	1,524	1,684	1,904	1,830
OTHER PHYSICAL SCIENTISTS	464	524	492	485	456	500	484
ENVIRONMENTAL SCIENTISTS	1,068	1,199	1,249	1,317	1,481	1,478	1,491
ATMOSPHERIC SCIENTISTS	123	118	93	141	150	155	134
EARTH SCIENTISTS	826	967	1,031	1,024	1,015	996	1,010
OCEANOGRAPHERS	119	114	125	152	153	142	129
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	163	185	228
MATHEMATICAL AND COMPUTER SCIENTISTS	6,071	6,791	8,126	8,685	9,927	11,859	13,817
MATHEMATICIANS	4,669	5,144	6,152	6,429	7,165	8,346	9,324
COMPUTER SCIENTISTS	1,402	1,647	1,974	2,256	2,762	3,513	4,493
LIFE SCIENTISTS	22,782	22,725	23,135	25,230	25,547	27,215	31,022
AGRICULTURAL SCIENTISTS	1,052	1,230	1,297	1,318	1,459	1,561	1,783
BIOLOGICAL SCIENTISTS	4,711	5,134	5,743	5,936	6,089	6,438	6,603
MEDICAL SCIENTISTS	17,019	16,361	16,095	17,976	16,800	17,797	20,506
OTHER LIFE SCIENTISTS 2/	-	-	-	-	1,199	1,419	2,130
PSYCHOLOGISTS	5,676	6,138	6,392	6,346	6,524	6,526	6,897
SOCIAL SCIENTISTS	10,473	11,661	12,118	12,725	12,928	13,980	14,239
ECONOMISTS	2,486	2,764	3,170	3,233	3,580	3,847	3,992
POLITICAL SCIENTISTS	1,866	2,278	2,212	2,297	2,427	2,573	2,659
SOCIOLOGISTS	3,490	3,757	3,864	3,907	3,641	3,943	3,879
OTHER SOCIAL SCIENTISTS	2,631	2,862	2,872	3,288	3,280	3,617	3,709

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-6. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1979	1980	1981	1982
TOTAL	180,330	186,205	193,087	200,246	210,441	217,875	223,712	231,828
ENGINEERS	19,560	19,980	21,198	21,740	23,528	24,482	25,009	25,402
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	889	868	871	830	893	1,113	961	987
CHEMICAL ENGINEERS	1,592	1,613	1,711	1,751	1,890	2,070	1,962	1,992
CIVIL ENGINEERS	3,290	3,430	3,518	3,631	3,715	3,797	3,853	4,157
ELECTRICAL ENGINEERS	4,247	4,305	4,317	4,547	5,115	5,481	5,638	5,729
MECHANICAL ENGINEERS	3,337	3,448	3,554	3,620	3,827	4,001	4,156	4,205
OTHER ENGINEERS	6,205	6,316	7,227	7,361	8,088	8,020	8,439	8,332
PHYSICAL SCIENTISTS	16,654	17,290	17,782	18,283	18,797	19,239	19,522	19,623
ASTRONOMERS 1/	-	-	-	-	751	736	800	946
CHEMISTS	8,097	8,470	8,744	9,140	9,084	9,232	9,645	9,619
PHYSICISTS	7,118	7,154	7,449	7,661	7,801	7,988	7,797	7,866
OTHER PHYSICAL SCIENTISTS	1,439	1,666	1,589	1,482	1,161	1,283	1,280	1,192
ENVIRONMENTAL SCIENTISTS	4,930	5,324	6,094	6,377	6,499	6,749	6,943	7,000
ATMOSPHERIC SCIENTISTS	539	574	671	800	784	804	768	759
EARTH SCIENTISTS	3,408	3,690	4,116	4,230	3,893	4,090	4,236	4,325
OCEANOGRAPHERS	983	1,060	1,307	1,347	1,543	1,362	1,439	1,328
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	-	-	-	279	493	500	588
MATHEMATICAL AND COMPUTER SCIENTISTS	11,608	12,253	12,955	13,522	14,469	15,644	16,574	17,457
MATHEMATICIANS	9,052	9,394	9,892	10,251	10,534	11,083	11,471	11,796
COMPUTER SCIENTISTS	2,556	2,859	3,063	3,271	3,935	4,561	5,103	5,661
LIFE SCIENTISTS	94,883	96,409	98,886	102,824	108,984	113,588	116,654	123,270
AGRICULTURAL SCIENTISTS	12,282	12,198	12,079	12,579	13,258	13,498	13,723	14,111
BIOLOGICAL SCIENTISTS	25,423	26,814	28,899	29,503	30,911	31,385	32,939	33,085
MEDICAL SCIENTISTS	57,178	57,397	57,908	60,742	61,586	64,187	65,342	70,356
OTHER LIFE SCIENTISTS 1/	-	-	-	-	3,229	4,518	4,650	5,718
PSYCHOLOGISTS	9,248	9,646	9,815	9,989	10,041	10,229	10,439	10,419
SOCIAL SCIENTISTS	23,447	25,303	26,357	27,511	28,123	27,944	28,571	28,657
ECONOMISTS	6,541	6,853	7,316	7,614	7,982	8,111	8,227	8,294
POLITICAL SCIENTISTS	4,783	5,154	5,214	5,340	5,503	5,410	5,622	5,802
SOCIOLOGISTS	5,756	6,329	6,610	6,622	6,628	6,363	6,703	6,539
OTHER SOCIAL SCIENTISTS	6,367	6,967	7,217	7,935	8,010	8,060	8,019	8,022

1/ DATA NOT AVAILABLE PRIOR TO 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-7. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1979	1980	1981	1982
TOTAL	148,096	153,874	159,744	164,628	173,072	179,655	183,055	188,102
ENGINEERS	16,596	16,963	17,955	18,428	19,932	20,468	20,867	21,252
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	792	778	778	748	778	945	846	853
CHEMICAL ENGINEERS	1,390	1,437	1,503	1,540	1,611	1,690	1,687	1,718
CIVIL ENGINEERS	2,727	2,880	2,967	3,079	3,122	3,176	3,243	3,447
ELECTRICAL ENGINEERS	3,575	3,610	3,696	3,847	4,387	4,671	4,738	4,847
MECHANICAL ENGINEERS	2,917	2,982	3,072	3,104	3,277	3,409	3,505	3,508
OTHER ENGINEERS	5,195	5,276	5,939	6,110	6,757	6,577	6,848	6,879
PHYSICAL SCIENTISTS	14,814	15,478	15,940	16,245	16,613	16,773	16,963	17,251
ASTRONOMERS 1/	-	-	-	-	687	685	736	867
CHEMISTS	7,050	7,448	7,716	7,963	7,749	7,779	8,262	8,293
PHYSICISTS	6,503	6,553	6,810	6,981	7,076	7,271	6,958	7,130
OTHER PHYSICAL SCIENTISTS	1,261	1,477	1,414	1,301	901	1,038	1,007	961
ENVIRONMENTAL SCIENTISTS	4,387	4,771	5,491	5,723	5,773	5,921	6,150	6,208
ATMOSPHERIC SCIENTISTS	459	509	608	712	693	701	669	688
EARTH SCIENTISTS	3,032	3,272	3,662	3,761	3,476	3,570	3,739	3,799
OCEANOGRAPHERS	896	990	1,221	1,250	1,428	1,257	1,339	1,249
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	-	-	-	176	393	403	472
MATHEMATICAL AND COMPUTER SCIENTISTS	9,833	10,468	10,866	11,191	11,970	12,823	13,411	13,921
MATHEMATICIANS	7,826	8,164	8,426	8,613	8,896	9,156	9,381	9,453
COMPUTER SCIENTISTS	2,007	2,304	2,440	2,578	3,074	3,667	4,030	4,468
LIFE SCIENTISTS	75,720	77,354	79,738	82,278	87,936	92,720	94,556	98,096
AGRICULTURAL SCIENTISTS	11,522	11,405	11,315	11,830	12,335	12,549	12,667	12,881
BIOLOGICAL SCIENTISTS	22,778	23,988	25,803	26,451	27,533	28,158	29,415	29,652
MEDICAL SCIENTISTS	41,420	41,961	42,620	43,997	45,484	48,413	48,760	51,121
OTHER LIFE SCIENTISTS 1/	-	-	-	-	2,584	3,600	3,714	4,442
PSYCHOLOGISTS	7,178	7,572	7,869	8,007	7,971	8,049	8,212	8,212
SOCIAL SCIENTISTS	19,568	21,268	21,885	22,756	23,077	22,901	22,896	23,162
ECONOMISTS	5,657	5,952	6,175	6,394	6,619	6,707	6,712	6,776
POLITICAL SCIENTISTS	4,058	4,317	4,306	4,436	4,456	4,376	4,583	4,695
SOCIOLOGISTS	4,671	5,219	5,435	5,446	5,457	5,220	5,254	5,259
OTHER SOCIAL SCIENTISTS	5,182	5,780	5,969	6,480	6,545	6,598	6,347	6,432

1/ DATA NOT AVAILABLE PRIOR TO 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-8. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1979	1980	1981	1982
TOTAL	32,234	32,331	33,343	35,618	37,369	38,220	40,657	43,726
ENGINEERS	2,964	3,017	3,243	3,312	3,596	4,014	4,142	4,150
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	97	90	93	82	115	168	115	134
CHEMICAL ENGINEERS	202	176	208	211	279	380	275	274
CIVIL ENGINEERS	563	550	551	552	593	621	610	710
ELECTRICAL ENGINEERS	672	695	621	700	728	810	900	882
MECHANICAL ENGINEERS	420	466	482	516	550	592	651	697
OTHER ENGINEERS	1,010	1,040	1,288	1,251	1,331	1,443	1,591	1,453
PHYSICAL SCIENTISTS	1,840	1,812	1,842	2,038	2,384	2,466	2,559	2,372
ASTRONOMERS 1/	-	-	-	-	64	51	64	79
CHEMISTS	1,047	1,022	1,028	1,177	1,335	1,453	1,383	1,326
PHYSICISTS	615	601	639	680	725	717	839	736
OTHER PHYSICAL SCIENTISTS	178	189	175	181	260	245	273	231
ENVIRONMENTAL SCIENTISTS	543	553	603	654	726	828	793	792
ATMOSPHERIC SCIENTISTS	80	65	63	88	91	103	99	71
EARTH SCIENTISTS	376	418	454	469	417	520	497	526
OCEANOGRAPHERS	87	70	86	97	115	105	100	79
OTHER ENVIRONMENTAL SCIENTISTS 1/	-	-	-	-	103	100	97	116
MATHEMATICAL AND COMPUTER SCIENTISTS	1,775	1,785	2,089	2,331	2,499	2,821	3,163	3,536
MATHEMATICIANS	1,226	1,230	1,466	1,638	1,638	1,927	2,090	2,343
COMPUTER SCIENTISTS	549	555	623	693	861	894	1,073	1,193
LIFE SCIENTISTS	19,163	19,055	19,148	20,546	21,048	20,868	22,098	25,174
AGRICULTURAL SCIENTISTS	760	793	764	749	923	949	1,056	1,230
BIOLOGICAL SCIENTISTS	2,645	2,826	3,096	3,052	3,378	3,227	3,524	3,433
MEDICAL SCIENTISTS	15,758	15,436	15,288	16,745	16,102	15,774	16,582	19,235
OTHER LIFE SCIENTISTS 1/	-	-	-	-	645	918	936	1,276
PSYCHOLOGISTS	2,070	2,074	1,946	1,982	2,070	2,180	2,227	2,207
SOCIAL SCIENTISTS	3,879	4,035	4,472	4,755	5,046	5,043	5,675	5,495
ECONOMISTS	884	901	1,141	1,220	1,363	1,404	1,515	1,518
POLITICAL SCIENTISTS	725	837	908	904	1,047	1,034	1,039	1,107
SOCIOLOGISTS	1,085	1,110	1,175	1,176	1,171	1,143	1,449	1,280
OTHER SOCIAL SCIENTISTS	1,185	1,187	1,248	1,455	1,465	1,462	1,672	1,590

1/ DATA NOT AVAILABLE PRIOR TO 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-9. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION: JANUARY 1975 - JANUARY 1982

DIVISION AND STATE	1975	1976	1977	1978	1980	1981	1982
TOTAL, ALL INSTITUTIONS	278,919	288,213	297,739	307,637	324,103	334,317	348,771
NEW ENGLAND	23,001	23,424	24,448	24,975	27,292	27,789	29,438
CONNECTICUT	4,849	5,058	5,370	5,409	6,185	6,184	6,567
MAINE	932	952	958	1,059	1,016	1,023	1,060
MASSACHUSETTS	14,130	14,267	15,001	15,317	16,632	16,948	18,170
NEW HAMPSHIRE	868	943	1,019	1,103	1,240	1,266	1,283
RHODE ISLAND	1,229	1,186	1,168	1,208	1,301	1,307	1,350
VERMONT	993	1,018	932	879	918	1,061	1,008
MIDDLE ATLANTIC	52,493	53,306	54,216	56,416	56,021	59,083	61,563
NEW JERSEY	6,949	7,190	7,081	7,385	7,626	7,998	8,291
NEW YORK	29,890	30,081	30,282	31,800	32,578	34,184	35,371
PENNSYLVANIA	15,654	16,035	16,853	17,331	15,817	16,901	17,901
EAST NORTH CENTRAL	49,260	51,284	52,413	53,457	56,603	56,947	59,350
ILLINOIS	13,917	14,783	15,214	15,159	16,189	16,408	16,725
INDIANA	5,035	5,104	5,214	5,479	5,782	5,854	6,069
MICHIGAN	11,757	11,728	11,739	11,768	11,624	12,115	12,046
OHIO	11,160	11,591	12,046	12,421	14,036	14,006	15,734
WISCONSIN	7,391	8,078	8,200	8,630	8,972	8,564	8,763
WEST NORTH CENTRAL	21,836	22,349	22,078	22,427	24,596	25,472	26,155
IOWA	3,697	3,870	4,014	4,078	4,874	4,987	4,822
KANSAS	3,286	3,406	3,452	3,537	3,894	4,054	4,223
MINNESOTA	5,030	5,186	5,191	5,201	5,386	5,502	5,471
MISSOURI	6,064	6,104	5,648	5,634	6,261	6,719	7,283
NEBRASKA	2,082	2,016	2,020	2,050	2,248	2,239	2,280
NORTH DAKOTA	723	774	787	894	958	964	1,063
SOUTH DAKOTA	954	993	966	1,033	975	977	1,013
SOUTH ATLANTIC	40,917	41,775	44,917	46,269	49,821	51,667	53,185
DELAWARE	590	620	661	676	734	743	800
DISTRICT OF COLUMBIA	3,791	3,744	4,134	3,733	4,380	4,584	4,552
FLORIDA	6,936	7,198	7,783	8,002	8,912	9,464	9,854
GEORGIA	5,187	5,378	5,593	5,887	6,145	6,137	6,293
MARYLAND	6,875	7,012	7,535	7,664	8,782	9,058	9,343
NORTH CAROLINA	7,364	7,124	7,836	8,267	8,272	8,519	8,769
SOUTH CAROLINA	2,938	3,047	3,094	3,367	4,054	4,235	4,340
VIRGINIA	5,387	5,693	6,351	6,657	6,331	6,759	6,958
WEST VIRGINIA	1,849	1,953	1,970	2,016	2,211	2,168	2,276
EAST SOUTH CENTRAL	13,041	13,477	14,689	15,600	16,865	17,056	17,502
ALABAMA	3,227	3,593	3,842	4,166	4,297	4,525	4,836
KENTUCKY	2,449	2,638	3,021	3,202	4,137	4,136	4,167
MISSISSIPPI	1,897	1,964	2,052	2,153	2,355	2,398	2,504
TENNESSEE	5,468	5,282	5,774	6,079	6,076	5,997	5,995
WEST SOUTH CENTRAL	23,481	24,318	25,452	26,324	29,307	29,615	30,350
ARKANSAS	2,069	2,043	2,213	2,298	2,428	2,299	2,291
LOUISIANA	4,395	4,495	4,333	4,834	5,421	5,488	5,564
OKLAHOMA	2,407	2,502	2,671	2,297	3,197	3,431	3,540
TEXAS	14,610	15,278	16,235	16,895	18,261	18,397	18,955
MOUNTAIN	12,558	13,492	13,563	15,066	16,620	17,607	18,193
ARIZONA	2,535	2,995	2,912	3,167	3,192	3,366	3,257
COLORADO	4,157	4,387	4,278	4,228	4,657	4,603	4,879
IDAHO	942	838	900	1,058	1,184	1,183	1,175
MONTANA	823	932	934	967	990	1,076	1,132
NEVADA	576	602	560	511	491	530	616
NEW MEXICO	1,251	1,374	1,435	1,574	2,369	2,695	2,797
UTAH	1,787	1,877	1,944	2,906	3,082	3,384	3,501
WYOMING	487	487	600	655	755	770	836
PACIFIC	39,881	42,002	43,310	44,480	44,098	45,522	49,153
ALASKA	424	347	345	387	374	368	359
CALIFORNIA	29,484	31,159	32,176	32,909	32,470	33,608	37,439
HAWAII	1,237	1,239	1,411	1,372	1,360	1,388	1,443
OREGON	3,750	3,983	3,995	4,120	4,103	4,362	4,356
WASHINGTON	4,986	5,274	5,383	5,692	5,791	5,796	5,556
OUTLYING AREAS	2,451	2,786	2,653	2,623	2,880	3,559	3,882

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-10. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION: JANUARY 1975 - JANUARY 1982

DIVISION AND STATE	1975	1976	1977	1978	1980	1981	1982
TOTAL, ALL INSTITUTIONS ...	223,336	229,787	236,174	242,066	254,870	259,544	267,063
NEW ENGLAND	17,896	18,368	19,006	19,626	21,012	21,375	21,864
CONNECTICUT	3,789	3,955	4,097	4,168	4,615	4,663	4,888
MAINE	815	827	826	861	827	837	829
MASSACHUSETTS	10,636	10,865	11,427	11,835	12,605	12,870	13,127
NEW HAMPSHIRE	735	813	873	904	991	878	905
RHODE ISLAND	1,102	1,090	1,070	1,113	1,188	1,184	1,221
VERMONT	819	818	713	745	786	943	894
MIDDLE ATLANTIC	38,726	39,609	39,865	41,064	42,255	43,846	45,169
NEW JERSEY	5,243	5,379	5,161	5,263	5,578	5,766	5,844
NEW YORK	21,825	22,516	22,887	23,704	24,350	25,236	25,780
PENNSYLVANIA	11,658	11,714	11,817	12,097	12,327	12,844	13,545
EAST NORTH CENTRAL	38,932	40,486	41,266	41,762	44,049	43,243	43,929
ILLINOIS	10,894	11,620	11,945	11,684	12,377	12,707	12,952
INDIANA	4,244	4,322	4,377	4,579	4,751	4,772	4,861
MICHIGAN	9,194	9,121	9,217	9,141	9,094	9,108	9,139
OHIO	8,783	8,930	9,021	9,257	10,528	9,597	9,768
MISCONSIN	5,817	6,493	6,706	7,101	7,299	7,059	7,209
WEST NORTH CENTRAL	19,344	19,722	19,432	19,661	20,901	21,539	21,721
IOWA	3,333	3,471	3,564	3,642	4,223	4,260	4,106
KANSAS	2,963	3,009	2,990	3,057	3,197	3,335	3,4[illegible]
MINNESOTA	4,200	4,346	4,398	4,374	4,514	4,607	4,555
MISSOURI	5,469	5,497	5,111	5,047	5,334	5,699	5,886
NEBRASKA	1,836	1,777	1,737	1,766	1,838	1,849	1,862
NORTH DAKOTA	689	734	753	860	896	923	981
SOUTH DAKOTA	854	888	879	915	899	866	891
SOUTH ATLANTIC	34,083	34,542	36,617	37,633	41,167	42,087	43,191
DELAWARE	558	577	627	6[illegible]	692	719	764
DISTRICT OF COLUMBIA	2,246	2,273	2,418	2,37[illegible]	2,872	2,957	2,978
FLORIDA	5,889	6,119	6,465	6,649	7,000	7,219	7,592
GEORGIA	4,558	4,665	4,806	5,107	5,349	5,302	5,310
MARYLAND	5,440	5,502	5,768	5,818	7,036	7,130	7,433
NORTH CAROLINA	6,741	6,448	6,966	7,144	7,370	7,596	7,812
SOUTH CAROLINA	2,512	2,551	2,589	2,782	3,512	3,647	3,683
VIRGINIA	4,518	4,721	5,268	5,388	5,506	5,719	5,750
WEST VIRGINIA	1,631	1,686	1,710	1,735	1,830	1,798	1,869
EAST SOUTH CENTRAL	11,398	11,532	12,617	13,221	14,271	14,281	14,568
ALABAMA	2,825	3,050	3,186	3,440	3,646	3,761	3,903
KENTUCKY	2,188	2,307	2,706	2,754	3,468	3,501	3,541
MISSISSIPPI	1,804	1,776	1,860	1,948	2,110	2,100	2,231
TENNESSEE	4,581	4,399	4,865	5,079	5,047	4,919	4,893
WEST SOUTH CENTRAL	20,213	21,031	21,966	22,373	24,613	24,727	25,246
ARKANSAS	1,868	1,867	1,992	1,977	2,232	2,052	2,061
LOUISIANA	3,813	3,860	3,861	4,048	4,642	4,632	4,706
OKLAHOMA	2,004	2,164	2,314	1,972	2,685	2,876	2,883
TEXAS	12,528	13,140	13,799	14,376	15,054	15,167	15,596
MOUNTAIN	11,157	11,7[illegible]8	11,964	13,085	14,137	15,149	15,521
ARIZONA	2,141	2,364	2,378	2,648	2,642	2,832	2,756
COLORADO	3,729	3,876	3,802	3,791	4,096	4,080	4,209
IDAHO	857	753	807	957	964	1,032	994
MONTANA	749	844	840	860	873	918	939
NEVADA	452	463	488	433	403	401	459
NEW MEXICO	1,118	1,187	1,237	1,400	1,952	2,222	2,323
UTAH	1,645	1,770	1,852	2,397	2,566	3,034	3,116
WYOMING	466	451	560	599	641	630	725
PACIFIC	29,398	30,266	31,036	31,466	30,378	30,679	33,057
ALASKA	407	343	344	321	316	316	320
CALIFORNIA	20,957	21,664	22,207	22,374	21,383	21,680	24,434
HAWAII	992	952	1,002	1,067	1,032	1,048	1,081
OREGON	2,820	2,984	3,163	3,159	3,186	3,186	3,192
WASHINGTON	4,222	4,323	4,320	4,545	4,461	4,449	4,030
OUTLYING AREAS	2,189	2,523	2,405	2,175	2,087	2,618	2,797

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-11. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION: JANUARY 1975 - JANUARY 1982

DIVISION AND STATE	1975	1976	1977	1978	1980	1981	1982
TOTAL, ALL INSTITUTIONS ...	55,583	58,426	61,565	65,571	69,233	74,773	81,708
NEW ENGLAND	5,105	5,056	5,442	5,349	6,280	6,414	7,574
CONNECTICUT	1,060	1,103	1,273	1,241	1,570	1,521	1,679
MAINE	117	125	132	198	189	186	231
MASSACHUSETTS	3,494	3,402	3,574	3,482	4,027	4,078	5,043
NEW HAMPSHIRE	133	130	146	199	249	388	378
RHODE ISLAND	127	96	98	95	113	123	129
VERMONT	174	200	219	134	132	118	114
MIDDLE ATLANTIC	13,767	13,697	14,351	15,352	13,766	15,237	16,394
NEW JERSEY	1,706	1,811	1,920	2,022	2,048	2,232	2,447
NEW YORK	8,065	7,565	7,395	8,096	8,228	8,948	9,591
PENNSYLVANIA	3,996	4,321	5,036	5,234	3,490	4,057	4,356
EAST NORTH CENTRAL	10,328	10,798	11,147	11,695	12,554	13,704	15,421
ILLINOIS	3,023	3,163	3,269	3,475	3,812	3,701	3,786
INDIANA	791	782	837	900	1,031	1,082	1,208
MICHIGAN	2,563	2,607	2,522	2,627	2,530	3,007	2,907
OHIO	2,377	2,661	3,025	3,164	3,508	4,409	5,966
WISCONSIN	1,574	1,585	1,494	1,529	1,673	1,505	1,554
WEST NORTH CENTRAL	2,492	2,627	2,646	2,766	3,695	3,933	4,434
IOWA	364	379	450	436	651	727	716
KANSAS	323	397	462	480	697	719	783
MINNESOTA	830	840	793	827	872	895	916
MISSOURI	595	607	537	587	927	1,020	1,397
NEBRASKA	246	239	283	284	410	390	418
NORTH DAKOTA	34	40	34	34	32	71	82
SOUTH DAKOTA	100	105	87	118	76	111	122
SOUTH ATLANTIC	6,834	7,233	8,300	8,636	8,654	9,580	9,994
DELAWARE	32	49	34	40	42	24	36
DISTRICT OF COLUMBIA	1,545	1,471	1,716	1,359	1,508	1,627	1,574
FLORIDA	1,047	1,079	1,278	1,353	1,912	2,245	2,262
GEORGIA	639	713	787	780	796	835	983
MARYLAND	1,435	1,510	1,767	1,846	1,746	1,928	1,910
NORTH CAROLINA	623	676	870	1,123	902	923	957
SOUTH CAROLINA	426	496	505	585	542	588	657
VIRGINIA	869	972	1,083	1,269	825	1,040	1,208
WEST VIRGINIA	218	267	260	281	381	370	407
EAST SOUTH CENTRAL	1,643	1,945	2,072	2,379	2,594	2,775	2,934
ALABAMA	402	543	656	726	651	764	933
KENTUCKY	261	331	315	448	669	635	626
MISSISSIPPI	93	188	192	205	245	298	273
TENNESSEE	887	883	909	1,000	1,029	1,078	1,102
WEST SOUTH CENTRAL	3,268	3,287	3,486	3,951	4,694	4,888	5,104
ARKANSAS	201	176	221	321	196	247	230
LOUISIANA	582	635	472	786	779	856	858
OKLAHOMA	403	338	357	325	512	555	657
TEXAS	2,082	2,138	2,436	2,519	3,207	3,230	3,359
MOUNTAIN	1,401	1,784	1,599	1,981	2,483	2,458	2,672
ARIZONA	394	631	534	519	550	534	501
COLORADO	428	511	476	437	561	523	670
IDAHO	85	85	93	101	120	151	181
MONTANA	74	88	94	107	117	158	193
NEVADA	124	139	72	78	88	129	157
NEW MEXICO	133	187	198	174	417	473	474
UTAH	142	107	92	509	516	350	385
WYOMING	21	36	40	56	114	140	111
PACIFIC	10,483	11,736	12,274	13,014	13,720	14,843	16,096
ALASKA	17	4	1	66	58	52	39
CALIFORNIA	8,527	9,495	9,969	10,535	11,087	11,928	13,005
HAWAII	245	287	409	305	328	340	362
OREGON	930	999	832	961	917	1,176	1,164
WASHINGTON	764	951	1,063	1,147	1,330	1,347	1,526
OUTLYING AREAS	262	263	248	448	793	941	1,085

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-12. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY CONTROL AND LEVEL OF ATTAINMENT: JANUARY 1975 - JANUARY 1982 1/

CONTROL AND LEVEL OF ATTAINMENT	1975	1976	1977	1978	1980	1981	1982	PERCENT CHANGE 1981-82
ALL INSTITUTIONS								
TOTAL	223,336	229,787	236,174	242,066	254,870	259,544	267,063	2.9%
DOCTOR'S	122,760	129,841	134,608	138,929	143,376	145,875	148,238	1.6
FIRST PROFESSIONAL	29,148	30,099	30,835	31,633	34,331	34,375	37,085	7.9
MASTER'S	54,719	53,698	54,079	54,541	56,719	57,202	59,064	3.3
BACHELOR'S	16,709	16,149	16,652	16,963	20,444	22,092	22,676	2.6
PUBLIC INSTITUTIONS								
TOTAL	156,819	161,719	166,406	169,292	178,052	181,376	187,080	3.1
DOCTOR'S	84,539	90,072	93,303	95,874	98,974	100,807	101,859	1.0
FIRST PROFESSIONAL	15,525	16,248	16,563	16,425	17,414	17,486	19,849	13.5
MASTER'S	43,351	42,766	43,391	43,826	45,759	45,979	47,510	3.3
BACHELOR'S	13,404	12,633	13,149	13,167	15,905	17,104	17,862	4.4
PRIVATE INSTITUTIONS								
TOTAL	66,517	68,068	69,768	72,774	76,818	78,168	79,983	2.3
DOCTOR'S	38,221	39,769	41,305	43,055	44,402	45,068	46,379	2.9
FIRST PROFESSIONAL	13,623	13,851	14,272	15,208	16,917	16,889	17,236	2.1
MASTER'S	11,368	10,932	10,688	10,715	10,960	11,223	11,554	2.9
BACHELOR'S	3,305	3,516	3,503	3,796	4,539	4,988	4,814	-3.5

1/ DATA WERE NOT COLLECTED IN 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-13. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY CONTROL AND LEVEL OF ATTAINMENT: JANUARY 1975 - JANUARY 1982 1/

CONTROL AND LEVEL OF ATTAINMENT	1975	1976	1977	1978	1980	1981	1982	PERCENT CHANGE 1981-82
ALL INSTITUTIONS								
TOTAL	55,583	58,426	61,565	65,571	69,233	74,773	81,708	9.3%
DOCTOR'S	13,991	14,956	15,560	16,986	18,164	18,793	19,896	5.9
FIRST PROFESSIONAL	14,447	14,202	13,688	15,101	14,363	15,599	16,455	5.5
MASTER'S	20,019	21,718	23,909	24,666	26,721	29,288	31,716	8.3
BACHELOR'S	7,126	7,550	8,408	8,818	9,985	11,093	13,641	23.0
PUBLIC INSTITUTIONS								
TOTAL	34,318	36,829	39,375	41,543	45,829	49,190	53,258	8.3
DOCTOR'S	8,370	8,578	8,967	9,826	11,149	11,297	11,604	2.7
FIRST PROFESSIONAL	6,555	6,693	6,707	7,296	7,673	7,951	7,882	-.9
MASTER'S	13,823	15,543	17,022	17,433	18,750	20,833	22,569	8.3
BACHELOR'S	5,570	6,015	6,679	6,988	8,257	9,109	11,203	23.0
PRIVATE INSTITUTIONS								
TOTAL	21,265	21,597	22,190	24,028	23,404	25,583	28,450	11.2
DOCTOR'S	5,621	6,378	6,593	7,160	7,015	7,496	8,292	10.6
FIRST PROFESSIONAL	7,892	7,509	6,981	7,805	6,690	7,648	8,573	12.1
MASTER'S	6,196	6,175	6,887	7,233	7,971	8,455	9,147	8.2
BACHELOR'S	1,556	1,535	1,729	1,830	1,728	1,984	2,438	22.9

1/ DATA WERE NOT COLLECTED IN 1979.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-14. — MALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	189,723	194,283	199,334	203,125	210,673	212,918	216,630
ENGINEERS	22,211	22,475	23,599	24,068	25,759	26,201	27,174
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	919	936	946	946	1,117	1,035	1,062
CHEMICAL ENGINEERS	1,578	1,601	1,644	1,692	1,827	1,833	1,815
CIVIL ENGINEERS	3,771	3,932	4,022	4,112	4,207	4,314	4,570
ELECTRICAL ENGINEERS	5,336	5,331	5,392	5,502	6,260	6,394	6,675
MECHANICAL ENGINEERS	4,325	4,301	4,408	4,471	4,725	4,820	4,996
OTHER ENGINEERS	6,282	6,374	7,187	7,345	7,623	7,805	8,056
PHYSICAL SCIENTISTS	24,665	24,980	25,342	25,451	25,502	25,582	25,837
ASTRONOMERS 2/	-	-	-	-	750	821	979
CHEMISTS	12,395	12,633	12,908	13,012	12,551	12,895	12,902
PHYSICISTS	10,554	10,428	10,618	10,771	10,831	10,521	10,643
OTHER PHYSICAL SCIENTISTS	1,716	1,919	1,816	1,668	1,370	1,345	1,313
ENVIRONMENTAL SCIENTISTS	6,468	6,868	7,459	7,612	7,673	7,817	7,759
ATMOSPHERIC SCIENTISTS	525	569	654	786	749	713	711
EARTH SCIENTISTS	4,949	5,240	5,565	5,552	5,156	5,212	5,214
OCEANOGRAPHERS	994	1,059	1,240	1,274	1,258	1,305	1,195
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	510	587	639
MATHEMATICAL AND COMPUTER SCIENTISTS	19,479	20,021	20,612	20,874	21,945	22,677	23,461
MATHEMATICIANS	16,220	16,371	16,566	16,649	16,738	16,908	17,041
COMPUTER SCIENTISTS	3,259	3,650	4,046	4,225	5,207	5,769	6,420
LIFE SCIENTISTS	72,639	73,571	75,595	77,776	84,054	84,762	86,553
AGRICULTURAL SCIENTISTS	11,685	11,776	11,953	12,465	13,113	13,210	13,239
BIOLOGICAL SCIENTISTS	27,143	27,865	29,314	29,870	30,497	31,174	31,052
MEDICAL SCIENTISTS	33,811	33,930	34,328	35,441	38,601	38,352	39,770
OTHER LIFE SCIENTISTS 2/	-	-	-	-	1,843	2,026	2,492
PSYCHOLOGISTS	12,391	12,804	13,055	13,092	12,415	12,427	12,317
SOCIAL SCIENTISTS	31,870	33,564	33,672	34,252	33,325	33,452	33,529
ECONOMISTS	9,304	9,436	9,738	9,886	9,982	10,112	10,204
POLITICAL SCIENTISTS	7,788	8,036	7,955	7,976	7,655	7,838	7,904
SOCIOLOGISTS	8,104	8,499	8,631	8,475	7,[illegible]80	7,792	7,741
OTHER SOCIAL SCIENTISTS	6,674	7,593	7,348	7,915	7,[illegible]08	7,710	7,680

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA WERE NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-15. — FEMALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	33,613	35,504	36,840	38,94[illegible]	44,197	46,626	50,433
ENGINEERS	369	449	506	598	713	805	875
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	25	30	22	18	27	22	21
CHEMICAL ENGINEERS	25	37	40	33	59	69	96
CIVIL ENGINEERS	61	83	89	128	118	133	166
ELECTRICAL ENGINEERS	57	74	71	91	114	125	136
MECHANICAL ENGINEERS	30	45	59	61	92	112	98
OTHER ENGINEERS	171	180	225	267	303	344	358
PHYSICAL SCIENTISTS	1,997	2,106	2,211	2,451	2,491	2,598	2,668
ASTRONOMERS 2/	-	-	-	-	68	79	81
CHEMISTS	1,428	1,507	1,563	1,724	1,779	1,872	1,898
PHYSICISTS	386	394	438	483	492	489	511
OTHER PHYSICAL SCIENTISTS	183	205	210	244	152	158	178
ENVIRONMENTAL SCIENTISTS	319	390	512	569	660	746	809
ATMOSPHERIC SCIENTISTS	34	33	38	35	44	50	50
EARTH SCIENTISTS	223	287	349	411	398	426	454
OCEANOGRAPHERS	62	70	125	123	127	162	199
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	91	108	104
MATHEMATICAL AND COMPUTER SCIENTISTS	2,925	3,104	3,258	3,475	4,085	4,451	4,861
MATHEMATICIANS	2,479	2,622	2,721	2,915	3,176	3,326	3,518
COMPUTER SCIENTISTS	446	482	537	560	909	1,125	1,343
LIFE SCIENTISTS	18,045	18,286	18,711	19,950	24,101	25,800	28,661
AGRICULTURAL SCIENTISTS	1,550	1,165	1,112	1,239	1,327	1,357	1,477
BIOLOGICAL SCIENTISTS	6,319	7,026	7,561	7,791	8,217	8,744	9,123
MEDICAL SCIENTISTS	10,176	10,095	10,038	10,920	11,715	12,487	13,239
OTHER LIFE SCIENTISTS 2/	-	-	-	-	2,842	3,212	4,822
PSYCHOLOGISTS	3,582	3,983	4,252	4,314	4,318	4,410	4,450
SOCIAL SCIENTISTS	6,376	7,186	7,390	7,584	7,829	7,816	8,109
ECONOMISTS	865	933	957	968	1,110	1,120	1,198
POLITICAL SCIENTISTS	899	1,029	1,049	1,079	1,112	1,157	1,283
SOCIOLOGISTS	2,640	2,926	3,043	3,027	2,940	2,960	3,038
OTHER SOCIAL SCIENTISTS	1,972	2,298	2,341	2,510	2,667	2,579	2,590

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA WERE NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-16. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	262,475	268,530	277,357	210,673	212,918	216,630	51,802	55,612	60,727
ENGINEERS	32,746	33,678	35,175	25,759	26,201	27,174	6,987	7,477	8,001
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,365	1,231	1,292	1,117	1,035	1,062	248	196	230
CHEMICAL ENGINEERS	2,272	2,181	2,152	1,827	1,833	1,815	445	348	337
CIVIL ENGINEERS	5,374	5,538	5,868	4,207	4,314	4,570	1,167	1,224	1,298
ELECTRICAL ENGINEERS	8,011	8,408	8,827	6,260	6,394	6,675	1,751	2,014	2,152
MECHANICAL ENGINEERS	5,953	6,163	6,503	4,725	4,820	4,996	1,228	1,343	1,507
OTHER ENGINEERS	9,771	10,157	10,533	7,623	7,805	8,056	2,148	2,352	2,477
PHYSICAL SCIENTISTS	29,739	30,128	30,402	25,502	25,582	25,837	4,237	4,546	4,565
ASTRONOMERS	867	960	1,145	750	821	979	117	139	166
CHEMISTS	14,796	15,202	15,292	12,551	12,895	12,902	2,245	2,307	2,390
PHYSICISTS	12,355	12,232	12,783	10,831	10,521	10,643	1,524	1,711	1,640
OTHER PHYSICAL SCIENTISTS	1,721	1,734	1,682	1,370	1,345	1,313	351	389	369
ENVIRONMENTAL SCIENTISTS	8,869	8,984	8,927	7,673	7,817	7,759	1,196	1,167	1,168
ATMOSPHERIC SCIENTISTS	885	848	825	749	713	711	136	135	114
EARTH SCIENTISTS	5 988	6,021	6,009	5,156	5,212	5,214	832	809	795
OCEANOGRAPHERS	1,371	1,404	1,295	1,258	1,305	1,195	113	99	100
OTHER ENVIRONMENTAL SCIENTISTS	625	711	798	510	587	639	115	124	159
MATHEMATICAL AND COMPUTER SCIENTISTS	29,065	31,216	33,505	21,945	22,677	23,461	7,120	8,539	10,044
MATHEMATICIANS	21,463	23,487	23,748	16,738	16,908	17,041	4,725	5,579	6,257
COMPUTER SCIENTISTS	7,602	7,729	10,207	5,207	5,769	6,420	2,395	2,960	3,787
LIFE SCIENTISTS	103,072	108,614	109,073	84,054	84,762	86,553	19,018	19,852	22,520
AGRICULTURAL SCIENTISTS	14,285	14,478	14,645	13,113	13,210	13,239	1,172	1,268	1,406
BIOLOGICAL SCIENTISTS	34,301	35,212	35,146	30,497	31,174	31,052	3,804	4,038	4,094
MEDICAL SCIENTISTS	52,084	52,276	55,918	38,601	38,352	39,770	13,483	13,924	16,148
OTHER LIFE SCIENTISTS	2,402	2,648	3,364	1,843	2,026	2,492	559	622	872
PSYCHOLOGISTS	16,259	16,326	16,442	12,415	12,427	12,317	3,844	3,899	4,125
SOCIAL SCIENTISTS	42,715	43,584	43,833	33,325	33,452	33,529	9,400	10,132	10,304
ECONOMISTS	13,031	13,423	13,644	9,982	10,112	10,204	3,049	3,311	3,440
POLITICAL SCIENTISTS	9,589	9,879	10,017	7,655	7,838	7,904	1,934	2,041	2,113
SOCIOLOGISTS	10,141	10,155	10,076	7,920	7,792	7,741	2,221	2,363	2,335
OTHER SOCIAL SCIENTISTS	9,964	10,127	10,096	7,768	7,710	7,680	2,196	2,417	2,416

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-17. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	61,628	65,787	71,414	44,197	46,626	50,433	17,431	19,161	20,981
ENGINEERS	991	1,152	1,244	713	805	875	278	347	369
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	42	31	31	27	22	21	15	9	10
CHEMICAL ENGINEERS	80	102	132	59	69	96	21	33	36
CIVIL ENGINEERS	155	179	232	118	133	166	37	46	66
ELECTRICAL ENGINEERS	143	176	197	114	125	136	29	51	61
MECHANICAL ENGINEERS	121	160	149	92	112	98	29	48	51
OTHER ENGINEERS	450	504	503	303	344	358	147	160	145
PHYSICAL SCIENTISTS	3,815	3,943	3,975	2,491	2,598	2,668	1,324	1,345	1,307
ASTRONOMERS	88	105	112	68	79	81	20	26	31
CHEMISTS	2,818	2,887	2,869	1,779	1,872	1,898	1,039	1,015	971
PHYSICISTS	652	682	701	492	489	511	160	193	190
OTHER PHYSICAL SCIENTISTS	257	269	293	152	158	178	105	111	115
ENVIRONMENTAL SCIENTISTS	945	1,057	1,132	660	746	809	285	311	323
ATMOSPHERIC SCIENTISTS	58	70	60	44	50	50	14	20	10
EARTH SCIENTISTS	581	613	671	398	426	456	183	187	215
OCEANOGRAPHERS	167	205	228	127	162	199	40	43	29
OTHER ENVIRONMENTAL SCIENTISTS	139	169	173	91	108	104	48	61	69
MATHEMATICAL AND COMPUTER SCIENTISTS	6,892	7,771	8,634	4,085	4,451	4,861	2,807	3,320	3,773
MATHEMATICIANS	5,616	6,093	6,585	3,176	3,326	3,518	2,440	2,767	3,067
COMPUTER SCIENTISTS	1,276	1,678	2,049	909	1,125	1,343	367	553	706
LIFE SCIENTISTS	30,630	33,163	37,163	24,101	25,800	28,661	6,529	7,363	8,502
AGRICULTURAL SCIENTISTS	1,614	1,650	1,854	1,327	1,357	1,477	287	293	377
BIOLOGICAL SCIENTISTS	10,502	11,144	11,632	8,217	8,744	9,123	2,285	2,400	2,509
MEDICAL SCIENTISTS	15,032	16,360	17,597	11,715	12,487	13,239	3,317	3,873	4,358
OTHER LIFE SCIENTISTS	3,482	4,009	6,080	2,842	3,212	4,822	640	797	1,258
PSYCHOLOGISTS	6,998	7,037	7,222	4,318	4,410	4,450	2,680	2,627	2,772
SOCIAL SCIENTISTS	11,357	11,664	12,044	7,829	7,816	8,109	3,528	3,848	3,935
ECONOMISTS	1,641	1,656	1,750	1,110	1,120	1,198	531	536	552
POLITICAL SCIENTISTS	1,605	1,689	1,829	1,112	1,157	1,283	493	532	546
SOCIOLOGISTS	4,360	4,540	4,582	2,940	2,960	3,038	1,420	1,580	1,544
OTHER SOCIAL SCIENTISTS	3,751	3,779	3,883	2,667	2,579	2,590	1,084	1,200	1,293

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-18. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	179,052	182,363	187,450	149,690	151,520	154,174	29,362	30,843	33,276
ENGINEERS	23,642	24,089	24,429	19,862	20,191	20,528	3,780	3,898	3,901
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,082	942	970	924	831	839	158	111	131
CHEMICAL ENGINEERS	1,992	1,882	1,887	1,633	1,625	1,635	359	257	252
CIVIL ENGINEERS	3,675	3,707	3,766	3,083	3,134	3,311	592	573	455
ELECTRICAL ENGINEERS	5,360	5,511	5,584	4,573	4,637	4,733	787	874	851
MECHANICAL ENGINEERS	3,902	4,036	4,109	3,332	3,416	3,442	570	620	667
OTHER ENGINEERS	7,631	8,011	7,913	6,317	6,548	6,568	1,314	1,463	1,345
PHYSICAL SCIENTISTS	17,407	17,606	17,711	15,490	15,603	15,837	1,917	2,003	1,874
ASTRONOMERS	668	720	865	629	672	802	39	48	63
CHEMISTS	7,984	8,354	8,360	6,958	7,367	7,377	1,026	987	983
PHYSICISTS	7,624	7,413	7,467	6,978	6,662	6,812	646	751	655
OTHER PHYSICAL SCIENTISTS	1,131	1,119	1,019	925	902	846	206	217	173
ENVIRONMENTAL SCIENTISTS	6,069	6,163	6,180	5,430	5,577	5,594	639	586	586
ATMOSPHERIC SCIENTISTS	750	703	703	661	624	642	89	79	61
EARTH SCIENTISTS	3,730	3,832	3,893	3,309	3,441	3,490	421	391	403
OCEANOGRAPHERS	1,204	1,251	1,126	1,136	1,189	1,070	68	62	56
OTHER ENVIRONMENTAL SCIENTISTS	385	377	458	324	323	392	61	54	66
MATHEMATICAL AND COMPUTER SCIENTISTS	13,286	13,998	14,677	11,196	11,658	11,996	2,090	2,340	2,681
MATHEMATICIANS	9,383	9,694	9,950	8,072	8,277	8,277	1,311	1,417	1,673
COMPUTER SCIENTISTS	3,903	4,304	4,727	3,124	3,381	3,719	779	923	1,008
LIFE SCIENTISTS	89,251	90,506	94,606	73,086	73,725	75,444	16,165	16,781	19,162
AGRICULTURAL SCIENTISTS	12,121	12,289	12,486	11,358	11,432	11,530	763	857	956
BIOLOGICAL SCIENTISTS	24,259	25,242	25,074	22,221	23,008	22,911	2,038	2,234	2,163
MEDICAL SCIENTISTS	50,797	50,845	54,484	37,896	37,598	39,070	12,901	13,247	15,414
OTHER LIFE SCIENTISTS	2,074	2,130	2,562	1,611	1,687	1,933	463	443	629
PSYCHOLOGISTS	7,343	7,515	7,458	6,107	6,174	6,121	1,236	1,341	1,337
SOCIAL SCIENTISTS	22,054	22,486	22,389	18,519	18,592	18,654	3,535	3,894	3,735
ECONOMISTS	7,269	7,383	7,409	6,091	6,086	6,110	1,178	1,297	1,299
POLITICAL SCIENTISTS	4,628	4,789	4,859	3,810	3,990	4,013	818	799	846
SOCIOLOGISTS	4,459	4,588	4,450	3,839	3,820	3,772	620	768	678
OTHER SOCIAL SCIENTISTS	5,698	5,726	5,671	4,779	4,696	4,759	919	1,030	912

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-19. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	38,823	41,349	44,378	29,965	31,535	33,928	8,858	9,814	10,450
ENGINEERS	840	920	973	606	676	724	234	244	249
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	31	19	17	21	15	14	10	4	3
CHEMICAL ENGINEERS	78	80	105	57	62	83	21	18	22
CIVIL ENGINEERS	122	146	191	93	109	136	29	37	55
ELECTRICAL ENGINEERS	121	127	145	98	101	114	23	26	31
MECHANICAL ENGINEERS	99	120	96	77	89	66	22	31	30
OTHER ENGINEERS	389	428	419	260	300	311	129	128	108
PHYSICAL SCIENTISTS	1,832	1,916	1,912	1,283	1,360	1,414	549	556	498
ASTRONOMERS	68	80	81	56	64	65	12	16	16
CHEMISTS	1,248	1,291	1,259	821	895	916	427	396	343
PHYSICISTS	364	384	399	293	296	318	71	88	81
OTHER PHYSICAL SCIENTISTS	152	161	173	113	105	115	39	56	58
ENVIRONMENTAL SCIENTISTS	680	780	820	491	573	614	189	207	206
ATMOSPHERIC SCIENTISTS	54	65	56	40	45	46	14	20	10
EARTH SCIENTISTS	360	404	432	261	298	309	99	106	123
OCEANOGRAPHERS	158	188	202	121	150	179	37	38	23
OTHER ENVIRONMENTAL SCIENTISTS	108	123	130	69	80	80	39	43	50
MATHEMATICAL AND COMPUTER SCIENTISTS	2,358	2,576	2,780	1,627	1,753	1,925	731	823	855
MATHEMATICIANS	1,700	1,777	1,846	1,084	1,104	1,176	616	673	670
COMPUTER SCIENTISTS	658	799	934	543	649	749	115	150	185
LIFE SCIENTISTS	24,337	26,148	28,664	19,634	20,831	22,652	4,703	5,317	6,012
AGRICULTURAL SCIENTISTS	1,377	1,434	1,625	1,191	1,235	1,351	186	199	274
BIOLOGICAL SCIENTISTS	7,126	7,697	8,011	5,937	6,407	6,741	1,189	1,290	1,270
MEDICAL SCIENTISTS	13,390	14,497	15,872	10,517	11,162	12,051	2,873	3,335	3,821
OTHER LIFE SCIENTISTS	2,444	2,520	3,156	1,989	2,027	2,509	455	493	647
PSYCHOLOGISTS	2,886	2,924	2,961	1,942	2,038	2,091	944	886	870
SOCIAL SCIENTISTS	5,890	6,085	6,268	4,382	4,304	4,508	1,508	1,781	1,760
ECONOMISTS	842	844	885	616	626	666	226	218	219
POLITICAL SCIENTISTS	782	833	943	566	593	682	216	240	261
SOCIOLOGISTS	1,904	2,115	2,089	1,381	1,434	1,487	523	681	602
OTHER SOCIAL SCIENTISTS	2,362	2,293	2,351	1,819	1,651	1,673	543	642	678

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-20. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	181,298	185,054	190,715	147,444	149,073	151,725	33,854	35,981	38,990
ENGINEERS	23,981	24,670	25,882	18,813	19,161	19,981	5,168	5,509	5,901
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	791	754	802	645	640	650	146	114	152
CHEMICAL ENGINEERS	1,634	1,550	1,526	1,291	1,290	1,292	343	260	234
CIVIL ENGINEERS	4,241	4,384	4,733	3,365	3,454	3,718	916	930	1,015
ELECTRICAL ENGINEERS	5,264	5,498	5,756	4,021	4,106	4,293	1,243	1,392	1,463
MECHANICAL ENGINEERS	4,242	4,364	4,649	3,421	3,448	3,615	821	916	1,034
OTHER ENGINEERS	7,769	8,120	8,416	6,070	6,223	6,413	1,699	1,897	2,003
PHYSICAL SCIENTISTS	17,772	19,981	20,078	16,763	16,822	16,999	3,009	3,159	3,079
ASTRONOMERS	603	675	841	517	569	721	86	106	120
CHEMISTS	10,032	10,090	10,060	8,350	8,417	8,359	1,682	1,673	1,701
PHYSICISTS	7,977	8,106	8,052	6,955	6,962	7,026	1,022	1,144	1,026
OTHER PHYSICAL SCIENTISTS	1,160	1,110	1,125	941	874	893	219	236	232
ENVIRONMENTAL SCIENTISTS	7,091	7,200	7,135	6,168	6,291	6,255	923	909	880
ATMOSPHERIC SCIENTISTS	756	743	692	639	624	592	117	119	100
EARTH SCIENTISTS	4,846	4,876	4,832	4,202	4,245	4,226	644	631	606
OCEANOGRAPHERS	1,032	1,018	993	940	936	917	92	82	76
OTHER ENVIRONMENTAL SCIENTISTS	457	563	618	387	486	520	70	77	98
MATHEMATICAL AND COMPUTER SCIENTISTS	21,454	23,073	24,597	16,370	16,829	17,380	5,084	6,244	7,217
MATHEMATICIANS	15,911	16,720	17,166	12,432	12,526	12,598	3,479	4,194	4,568
COMPUTER SCIENTISTS	5,543	6,353	7,431	3,938	4,303	4,782	1,605	2,050	2,649
LIFE SCIENTISTS	68,077	68,520	71,420	56,526	57,067	58,294	11,551	11,453	13,126
AGRICULTURAL SCIENTISTS	13,684	13,863	14,036	12,556	12,647	12,696	1,128	1,216	1,340
BIOLOGICAL SCIENTISTS	23,291	23,682	23,293	20,698	20,900	20,564	2,593	2,782	2,729
MEDICAL SCIENTISTS	29,487	28,958	31,494	22,053	21,989	23,135	7,434	6,969	8,359
OTHER LIFE SCIENTISTS	1,615	2,017	2,597	1,219	1,531	1,899	396	486	698
PSYCHOLOGISTS	11,119	11,150	11,092	8,821	8,841	8,719	2,298	2,309	2,373
SOCIAL SCIENTISTS	29,804	30,460	30,511	23,983	24,062	24,097	5,821	6,398	6,414
ECONOMISTS	8,530	8,788	8,848	6,790	6,875	6,909	1,740	1,913	1,939
POLITICAL SCIENTISTS	6,255	6,508	6,528	5,175	5,344	5,333	1,080	1,164	1,195
SOCIOLOGISTS	7,121	7,096	7,015	5,744	5,595	5,564	1,377	1,495	1,451
OTHER SOCIAL SCIENTISTS	7,898	8,074	8,120	6,274	6,248	6,291	1,624	1,826	1,829

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-21. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	42,583	45,512	49,623	30,608	32,303	35,355	11,975	13,209	14,268
ENGINEERS	754	891	968	531	607	674	223	284	294
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	20	20	21	14	14	14	6	6	7
CHEMICAL ENGINEERS	63	80	109	48	52	78	15	28	31
CIVIL ENGINEERS	126	138	197	98	101	140	28	37	57
ELECTRICAL ENGINEERS	85	104	132	62	75	88	23	29	44
MECHANICAL ENGINEERS	94	131	115	70	92	75	24	39	40
OTHER ENGINEERS	366	418	394	239	273	279	127	145	115
PHYSICAL SCIENTISTS	2,472	2,540	2,528	1,590	1,650	1,678	882	890	850
ASTRONOMERS	65	72	80	50	54	59	15	18	21
CHEMISTS	1,834	1,878	1,823	1,122	1,177	1,161	712	701	662
PHYSICISTS	425	445	455	317	322	341	108	123	114
OTHER PHYSICAL SCIENTISTS	148	145	170	101	97	117	47	48	53
ENVIRONMENTAL SCIENTISTS	682	761	829	476	542	605	206	219	224
ATMOSPHERIC SCIENTISTS	50	62	47	36	42	37	14	20	10
EARTH SCIENTISTS	440	476	530	307	338	370	133	138	160
OCEANOGRAPHERS	112	130	152	76	97	131	36	33	21
OTHER ENVIRONMENTAL SCIENTISTS	80	93	100	57	65	67	23	28	33
MATHEMATICAL AND COMPUTER SCIENTISTS	5,257	5,857	6,556	3,081	3,331	3,678	2,176	2,526	2,878
MATHEMATICIANS	4,263	4,571	4,994	2,357	2,457	2,628	1,906	2,114	2,366
COMPUTER SCIENTISTS	994	1,286	1,562	724	874	1,050	270	412	512
LIFE SCIENTISTS	20,640	22,563	25,535	16,252	17,521	19,791	4,388	5,042	5,744
AGRICULTURAL SCIENTISTS	1,565	1,593	1,791	1,287	1,309	1,427	278	284	364
BIOLOGICAL SCIENTISTS	6,719	7,145	7,440	5,115	5,463	5,779	1,604	1,682	1,661
MEDICAL SCIENTISTS	9,914	10,657	11,634	7,824	8,191	8,867	2,090	2,466	2,767
OTHER LIFE SCIENTISTS	2,442	3,168	4,670	2,026	2,558	3,718	416	610	952
PSYCHOLOGISTS	4,769	4,728	4,842	3,052	3,092	3,144	1,717	1,636	1,698
SOCIAL SCIENTISTS	8,009	8,172	8,365	5,626	5,560	5,785	2,383	2,612	2,580
ECONOMISTS	1,094	1,103	1,168	750	751	814	344	352	354
POLITICAL SCIENTISTS	1,023	1,116	1,191	729	780	864	294	336	327
SOCIOLOGISTS	2,966	3,101	3,042	2,019	2,046	2,107	947	1,055	935
OTHER SOCIAL SCIENTISTS	2,926	2,852	2,964	2,128	1,983	2,000	798	869	964

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-22. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	81,177	83,476	86,642	63,229	63,845	64,905	17,948	19,631	21,737
ENGINEERS	8,765	9,008	9,293	6,946	7,040	7,193	1,819	1,968	2,100
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	574	477	490	472	395	412	102	82	78
CHEMICAL ENGINEERS	778	631	626	536	543	523	242	88	103
CIVIL ENGINEERS	1,093	1,154	1,135	842	860	852	251	294	283
ELECTRICAL ENGINEERS	2,747	2,910	3,071	2,239	2,288	2,382	508	622	689
MECHANICAL ENGINEERS	1,711	1,799	1,854	1,304	1,372	1,381	407	427	473
OTHER ENGINEERS	2,002	2,037	2,117	1,553	1,582	1,643	449	455	474
PHYSICAL SCIENTISTS	9,967	10,147	10,324	8,739	8,760	8,838	1,228	1,387	1,486
ASTRONOMERS	264	285	304	233	252	258	31	33	46
CHEMISTS	4,764	5,112	5,232	4,201	4,478	4,543	563	634	689
PHYSICISTS	4,378	4,126	4,231	3,876	3,559	3,617	502	567	614
OTHER PHYSICAL SCIENTISTS	561	624	557	429	471	420	132	153	137
ENVIRONMENTAL SCIENTISTS	1,778	1,784	1,792	1,505	1,526	1,504	273	258	288
ATMOSPHERIC SCIENTISTS	129	105	133	110	89	119	19	16	14
EARTH SCIENTISTS	1,142	1,145	1,177	954	967	988	188	178	189
OCEANOGRAPHERS	339	386	302	318	369	278	21	17	24
OTHER ENVIRONMENTAL SCIENTISTS	168	148	180	123	101	119	45	47	61
MATHEMATICAL AND COMPUTER SCIENTISTS	7,611	8,143	8,908	5,575	5,848	6,081	2,036	2,295	2,827
MATHEMATICIANS	5,552	5,767	6,132	4,306	4,382	4,443	1,246	1,385	1,689
COMPUTER SCIENTISTS	2,059	2,376	2,776	1,269	1,466	1,638	790	910	1,138
LIFE SCIENTISTS	34,995	36,094	37,653	27,528	27,695	28,259	7,467	8,399	9,394
AGRICULTURAL SCIENTISTS	601	615	609	557	563	543	44	52	66
BIOLOGICAL SCIENTISTS	11,010	11,530	11,853	9,799	10,274	10,488	1,211	1,256	1,365
MEDICAL SCIENTISTS	22,597	23,318	24,424	16,548	16,363	16,635	6,049	6,955	7,789
OTHER LIFE SCIENTISTS	787	631	767	624	495	593	163	136	174
PSYCHOLOGISTS	5,140	5,176	5,350	3,594	3,586	3,598	1,546	1,590	1,752
SOCIAL SCIENTISTS	12,921	13,124	13,322	9,342	9,390	9,432	3,579	3,734	3,890
ECONOMISTS	4,501	4,635	4,796	3,192	3,237	3,295	1,309	1,398	1,501
POLITICAL SCIENTISTS	3,334	3,371	3,489	2,480	2,494	2,571	854	877	918
SOCIOLOGISTS	3,020	3,065	3,061	2,176	2,197	2,177	844	868	884
OTHER SOCIAL SCIENTISTS	2,066	2,053	1,976	1,494	1,462	1,389	572	591	587

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-23. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	19,045	20,275	21,791	13,589	14,323	15,078	5,456	5,952	6,713
ENGINEERS	237	261	276	182	198	201	55	63	75
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	22	11	10	13	8	7	9	3	3
CHEMICAL ENGINEERS	17	22	23	11	17	18	6	5	5
CIVIL ENGINEERS	29	41	35	20	32	26	9	9	9
ELECTRICAL ENGINEERS	58	72	65	52	50	48	6	22	17
MECHANICAL ENGINEERS	27	29	34	22	20	23	5	9	11
OTHER ENGINEERS	84	86	109	64	71	79	20	15	30
PHYSICAL SCIENTISTS	1,343	1,403	1,447	901	948	990	442	455	457
ASTRONOMERS	23	33	32	18	25	22	5	8	10
CHEMISTS	984	1,009	1,046	657	695	737	327	314	309
PHYSICISTS	227	237	246	175	167	170	52	70	76
OTHER PHYSICAL SCIENTISTS	109	124	123	51	61	61	58	63	62
ENVIRONMENTAL SCIENTISTS	263	296	303	184	204	204	79	92	99
ATMOSPHERIC SCIENTISTS	8	8	13	8	8	13	0	0	0
EARTH SCIENTISTS	141	137	141	91	88	86	50	49	55
OCEANOGRAPHERS	55	75	76	51	65	68	4	10	8
OTHER ENVIRONMENTAL SCIENTISTS	59	76	73	34	43	37	25	33	36
MATHEMATICAL AND COMPUTER SCIENTISTS	1,635	1,914	2,078	1,004	1,120	1,183	631	794	895
MATHEMATICIANS	1,353	1,522	1,591	819	869	890	534	653	701
COMPUTER SCIENTISTS	282	392	487	185	251	293	97	141	194
LIFE SCIENTISTS	9,990	10,600	11,628	7,849	8,279	8,870	2,141	2,321	2,758
AGRICULTURAL SCIENTISTS	49	57	63	40	48	50	9	9	13
BIOLOGICAL SCIENTISTS	3,783	3,999	4,192	3,102	3,281	3,344	681	718	848
MEDICAL SCIENTISTS	5,118	5,703	5,963	3,891	4,296	4,372	1,227	1,407	1,591
OTHER LIFE SCIENTISTS	1,040	841	1,410	816	654	1,104	224	187	306
PSYCHOLOGISTS	2,229	2,309	2,380	1,266	1,318	1,306	963	991	1,074
SOCIAL SCIENTISTS	3,348	3,492	3,679	2,203	2,256	2,324	1,145	1,236	1,355
ECONOMISTS	547	553	582	360	369	384	187	184	198
POLITICAL SCIENTISTS	582	573	638	383	377	419	199	196	219
SOCIOLOGISTS	1,394	1,439	1,540	921	914	931	473	525	609
OTHER SOCIAL SCIENTISTS	825	927	919	539	596	590	286	331	329

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-24. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	334,317	348,771	4.3%	230,566	240,338	4.2%	103,751	108,433	4.5%
ENGINEERS	34,830	36,419	4.6	25,561	26,850	5.0	9,269	9,569	3.2
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,262	1,323	4.8	774	823	6.3	488	500	2.5
CHEMICAL ENGINEERS	2,283	2,284	.0	1,630	1,635	.3	653	649	-.6
CIVIL ENGINEERS	5,717	6,100	6.7	4,522	4,930	9.0	1,195	1,170	-2.1
ELECTRICAL ENGINEERS	8,584	9,024	5.1	5,602	5,888	5.1	2,982	3,136	5.2
MECHANICAL ENGINEERS	6,323	6,652	5.2	4,495	4,764	6.0	1,828	1,888	3.3
OTHER ENGINEERS	10,661	11,036	3.5	8,538	8,810	3.2	2,123	2,226	4.9
PHYSICAL SCIENTISTS	34,071	34,377	.9	22,521	22,606	.4	11,550	11,771	1.9
ASTRONOMERS	1,065	1,257	18.0	747	921	23.3	318	336	5.7
CHEMISTS	18,089	18,161	.4	11,968	11,883	-.7	6,121	6,278	2.6
PHYSICISTS	12,914	12,984	.5	8,551	8,507	-.5	4,363	4,477	2.6
OTHER PHYSICAL SCIENTISTS	2,003	1,975	-1.4	1,255	1,295	3.2	748	680	-9.1
ENVIRONMENTAL SCIENTISTS	10,041	10,059	.2	7,961	7,964	.0	2,080	2,095	.7
ATMOSPHERIC SCIENTISTS	918	885	-3.6	805	739	-8.2	113	146	29.2
EARTH SCIENTISTS	6,634	6,680	.7	5,352	5,362	.2	1,282	1,318	2.8
OCEANOGRAPHERS	1,609	1,523	-5.3	1,148	1,145	-.3	461	378	-18.0
OTHER ENVIRONMENTAL SCIENTISTS	880	971	10.3	656	718	9.5	224	253	12.9
MATHEMATICAL AND COMPUTER SCIENTISTS	38,987	42,139	8.1	28,930	31,153	7.7	10,057	10,986	9.2
MATHEMATICIANS	28,580	29,883	4.6	21,291	22,160	4.1	7,289	7,723	6.0
COMPUTER SCIENTISTS	10,407	12,256	17.8	7,639	8,993	17.7	2,768	3,263	17.9
LIFE SCIENTISTS	137,777	146,236	6.1	91,083	96,955	6.4	46,694	49,281	5.5
AGRICULTURAL SCIENTISTS	16,128	16,499	2.3	15,456	15,827	2.4	672	672	-
BIOLOGICAL SCIENTISTS	46,356	46,778	.9	30,827	30,733	-.3	15,529	16,045	3.3
MEDICAL SCIENTISTS	68,636	73,515	7.1	39,615	43,128	8.9	29,021	30,387	4.7
OTHER LIFE SCIENTISTS	6,657	9,444	41.9	5,185	7,267	40.2	1,472	2,177	47.9
PSYCHOLOGISTS	23,363	23,664	1.3	15,878	15,934	.4	7,485	7,730	3.3
SOCIAL SCIENTISTS	55,248	55,877	1.1	38,632	38,876	.6	16,616	17,001	2.3
ECONOMISTS	15,079	15,394	2.1	9,891	10,016	1.3	5,188	5,378	3.7
POLITICAL SCIENTISTS	11,563	11,846	2.4	7,624	7,719	1.2	3,944	4,127	4.6
SOCIOLOGISTS	14,695	14,658	-.3	10,191	10,057	-1.3	4,504	4,601	2.2
OTHER SOCIAL SCIENTISTS	13,906	13,979	.5	10,926	11,084	1.4	2,980	2,895	-2.9

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-25. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	259,544	267,063	2.9%	181,376	187,080	3.1%	78,168	79,983	2.3%
ENGINEERS	27,006	28,049	3.9	19,768	20,655	4.5	7,238	7,394	2.2
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1,057	1,083	2.5	654	664	1.5	403	419	4.0
CHEMICAL ENGINEERS	1,902	1,911	.5	1,342	1,370	2.1	560	541	-3.4
CIVIL ENGINEERS	4,447	4,736	6.5	3,555	3,858	8.5	892	878	-1.6
ELECTRICAL ENGINEERS	6,519	6,811	4.5	4,181	4,381	4.8	2,338	2,430	3.9
MECHANICAL ENGINEERS	4,932	5,094	3.3	3,540	3,690	4.2	1,392	1,404	.9
OTHER ENGINEERS	8,149	8,414	3.3	6,496	6,692	3.0	1,653	1,722	4.2
PHYSICAL SCIENTISTS	28,180	28,505	1.2	18,472	18,677	1.1	9,708	9,828	1.2
ASTRONOMERS	900	1,060	17.8	623	780	25.2	277	280	1.1
CHEMISTS	14,767	14,800	.2	9,594	9,520	-.8	5,173	5,280	2.1
PHYSICISTS	11,010	11,154	1.3	7,284	7,367	1.1	3,726	3,787	1.6
OTHER PHYSICAL SCIENTISTS	1,503	1,491	-.8	971	1,010	4.0	532	481	-9.6
ENVIRONMENTAL SCIENTISTS	8,563	8,568	.1	6,833	6,860	.4	1,730	1,708	-1.3
ATMOSPHERIC SCIENTISTS	763	761	-.3	666	629	-5.6	97	132	36.1
EARTH SCIENTISTS	5,638	5,670	.6	4,583	4,596	.3	1,055	1,074	1.8
OCEANOGRAPHERS	1,467	1,394	-5.0	1,033	1,048	1.5	434	346	-20.3
OTHER ENVIRONMENTAL SCIENTISTS	695	743	6.9	551	587	6.5	144	156	8.3
MATHEMATICAL AND COMPUTER SCIENTISTS	27,128	28,322	4.4	20,160	21,058	4.5	6,968	7,264	4.2
MATHEMATICIANS	20,234	20,559	1.6	14,983	15,226	1.6	5,251	5,333	1.6
COMPUTER SCIENTISTS	6,894	7,763	12.6	5,177	5,832	12.7	1,717	1,931	12.5
LIFE SCIENTISTS	110,562	115,214	4.2	74,588	78,085	4.7	35,974	37,129	3.2
AGRICULTURAL SCIENTISTS	14,567	14,716	1.0	13,956	14,123	1.2	611	593	-2.9
BIOLOGICAL SCIENTISTS	39,918	40,175	.6	26,363	26,343	-.1	13,555	13,832	2.0
MEDICAL SCIENTISTS	50,839	53,009	4.3	30,180	32,002	6.0	20,659	21,007	1.7
OTHER LIFE SCIENTISTS	5,238	7,314	39.6	4,089	5,617	37.4	1,149	1,697	47.7
PSYCHOLOGISTS	16,837	16,767	-.4	11,933	11,863	-.6	4,904	4,904	-
SOCIAL SCIENTISTS	41,268	41,638	.9	29,622	29,882	.9	11,646	11,756	.9
ECONOMISTS	11,232	11,402	1.5	7,626	7,723	1.3	3,606	3,679	2.0
POLITICAL SCIENTISTS	8,995	9,187	2.1	6,124	6,197	1.2	2,871	2,990	4.1
SOCIOLOGISTS	10,752	10,779	.3	7,641	7,671	.4	3,111	3,108	-.1
OTHER SOCIAL SCIENTISTS	10,289	10,270	-.2	8,231	8,291	.7	2,058	1,979	-3.8

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-26. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	74,773	81,708	9.3%	49,190	53,258	8.3%	25,583	28,450	11.2%
ENGINEERS	7,824	8,370	7.0	5,793	6,195	6.9	2,031	2,175	7.1
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	205	240	17.1	120	159	32.5	85	81	-4.7
CHEMICAL ENGINEERS	381	373	-2.1	288	265	-8.0	93	108	16.1
CIVIL ENGINEERS	1,270	1,364	7.4	967	1,072	10.9	303	292	-3.6
ELECTRICAL ENGINEERS	2,065	2,213	7.2	1,421	1,507	6.1	644	706	9.6
MECHANICAL ENGINEERS	1,391	1,558	12.0	955	1,074	12.5	436	484	11.0
OTHER ENGINEERS	2,512	2,622	4.4	2,042	2,118	3.7	470	504	7.2
PHYSICAL SCIENTISTS	5,891	5,872	-.3	4,049	3,929	-3.0	1,842	1,943	5.5
ASTRONOMERS	165	197	19.4	124	141	13.7	41	56	36.6
CHEMISTS	3,322	3,361	1.2	2,374	2,363	-.5	948	998	5.3
PHYSICISTS	1,904	1,830	-3.9	1,267	1,140	-10.0	637	690	8.3
OTHER PHYSICAL SCIENTISTS	500	484	-3.2	284	285	.4	216	199	-7.9
ENVIRONMENTAL SCIENTISTS	1,478	1,491	.9	1,128	1,104	-2.1	350	387	10.6
ATMOSPHERIC SCIENTISTS	155	124	-20.0	139	110	-20.9	16	14	-12.5
EARTH SCIENTISTS	996	1,010	1.4	769	766	-.4	227	244	7.5
OCEANOGRAPHERS	142	129	-9.2	115	97	-15.7	27	32	18.5
OTHER ENVIRONMENTAL SCIENTISTS	185	228	23.2	105	131	24.8	80	97	21.2
MATHEMATICAL AND COMPUTER SCIENTISTS	11,859	13,817	16.5	8,770	10,095	15.1	3,089	3,722	20.5
MATHEMATICIANS	8,346	9,324	11.7	6,308	6,934	9.9	2,038	2,390	17.3
COMPUTER SCIENTISTS	3,513	4,493	27.9	2,462	3,161	28.4	1,051	1,332	26.7
LIFE SCIENTISTS	27,215	31,022	14.0	16,495	18,870	14.4	10,720	12,152	13.4
AGRICULTURAL SCIENTISTS	1,561	1,783	14.2	1,500	1,704	13.6	61	79	29.5
BIOLOGICAL SCIENTISTS	6,438	6,603	2.6	4,464	4,390	-1.7	1,974	2,213	12.1
MEDICAL SCIENTISTS	17,797	20,506	15.2	9,435	11,126	17.9	8,362	9,380	12.2
OTHER LIFE SCIENTISTS	1,419	2,130	50.1	1,096	1,650	50.5	323	480	48.6
PSYCHOLOGISTS	6,526	6,897	5.7	3,945	4,071	3.2	2,581	2,826	9.5
SOCIAL SCIENTISTS	13,980	14,239	1.9	9,010	8,994	-.2	4,970	5,245	5.5
ECONOMISTS	3,847	3,992	3.8	2,265	2,293	1.2	1,582	1,699	7.4
POLITICAL SCIENTISTS	2,573	2,659	3.3	1,500	1,522	1.5	1,073	1,137	6.0
SOCIOLOGISTS	3,943	3,879	-1.6	2,550	2,386	-6.4	1,393	1,493	7.2
OTHER SOCIAL SCIENTISTS	3,617	3,709	2.5	2,695	2,793	3.6	922	916	-.7

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-27. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	223,712	231,828	3.6%	151,624	156,636	3.3%	72,088	75,192	4.3%
ENGINEERS	25,009	25,402	1.6	17,664	17,776	.6	7,345	7,626	3.8
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	961	987	2.7	549	571	4.0	412	416	1.0
CHEMICAL ENGINEERS	1,962	1,992	1.5	1,396	1,421	1.8	566	571	.9
CIVIL ENGINEERS	3,853	4,157	7.9	2,969	3,259	9.8	884	898	1.6
ELECTRICAL ENGINEERS	5,638	5,729	1.6	3,267	3,261	-.2	2,371	2,468	4.1
MECHANICAL ENGINEERS	4,156	4,205	1.2	2,837	2,832	-.2	1,319	1,373	4.1
OTHER ENGINEERS	8,439	8,332	-1.3	6,646	6,432	-3.2	1,793	1,900	6.0
PHYSICAL SCIENTISTS	19,522	19,623	.5	12,839	12,756	-.6	6,683	6,867	2.8
ASTRONOMERS	800	946	18.2	541	686	26.8	259	260	.4
CHEMISTS	9,645	9,619	-.3	6,515	6,336	-2.7	3,130	3,283	4.9
PHYSICISTS	7,797	7,866	.9	5,118	5,089	-.6	2,679	2,777	3.7
OTHER PHYSICAL SCIENTISTS	1,280	1,192	-6.9	665	645	-3.0	615	547	-11.1
ENVIRONMENTAL SCIENTISTS	6,943	7,000	.8	5,426	5,501	1.4	1,517	1,499	-1.2
ATMOSPHERIC SCIENTISTS	768	759	-1.2	674	631	-6.4	94	128	36.2
EARTH SCIENTISTS	4,236	4,325	2.1	3,435	3,493	1.7	801	832	3.9
OCEANOGRAPHERS	1,439	1,328	-7.7	990	967	-2.3	449	361	-19.6
OTHER ENVIRONMENTAL SCIENTISTS	500	588	17.6	327	410	25.4	173	178	2.9
MATHEMATICAL AND COMPUTER SCIENTISTS	16,574	17,457	5.3	11,946	12,415	3.9	4,628	5,042	8.9
MATHEMATICIANS	11,471	11,796	2.8	8,451	8,527	.9	3,020	3,269	8.2
COMPUTER SCIENTISTS	5,103	5,661	10.9	3,495	3,888	11.2	1,608	1,773	10.3
LIFE SCIENTISTS	116,654	123,270	5.7	75,935	80,449	5.9	40,719	42,821	5.2
AGRICULTURAL SCIENTISTS	13,723	14,111	2.8	13,225	13,628	3.0	498	483	-3.0
BIOLOGICAL SCIENTISTS	32,939	33,085	.4	21,747	21,432	-1.4	11,192	11,653	4.1
MEDICAL SCIENTISTS	65,342	70,356	7.7	37,340	41,015	9.8	28,002	29,341	4.8
OTHER LIFE SCIENTISTS	4,650	5,718	23.0	3,623	4,374	20.7	1,027	1,344	30.9
PSYCHOLOGISTS	10,439	10,419	-.2	7,012	7,007	-.1	3,427	3,412	-.4
SOCIAL SCIENTISTS	28,571	28,657	.3	20,802	20,732	-.3	7,769	7,925	2.0
ECONOMISTS	8,227	8,294	.8	5,772	5,801	.5	2,455	2,493	1.5
POLITICAL SCIENTISTS	5,622	5,802	3.2	3,743	3,802	1.6	1,879	2,000	6.4
SOCIOLOGISTS	6,703	6,539	-2.4	5,047	4,830	-4.3	1,656	1,709	3.2
OTHER SOCIAL SCIENTISTS	8,019	8,022	.0	6,240	6,299	.9	1,779	1,723	-3.1

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-28. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	183,055	188,102	2.8%	126,734	130,625	3.1%	56,321	57,477	2.1%
ENGINEERS	20,867	21,252	1.8	14,814	15,113	2.0	6,053	6,139	1.4
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	846	853	.8	499	500	.2	347	353	1.7
CHEMICAL ENGINEERS	1,687	1,718	1.8	1,185	1,229	3.7	502	489	-2.6
CIVIL ENGINEERS	3,243	3,447	6.3	2,563	2,765	7.9	680	682	.3
ELECTRICAL ENGINEERS	4,738	4,847	2.3	2,768	2,829	2.2	1,970	2,018	2.4
MECHANICAL ENGINEERS	3,505	3,508	.1	2,428	2,433	.2	1,077	1,075	-.2
OTHER ENGINEERS	6,848	6,879	.5	5,371	5,357	-.3	1,477	1,522	3.0
PHYSICAL SCIENTISTS	16,963	17,251	1.7	11,066	11,266	1.8	5,897	5,985	1.5
ASTRONOMERS	736	867	17.8	494	631	27.7	242	236	-2.5
CHEMISTS	8,262	8,293	.4	5,462	5,407	-1.0	2,800	2,886	3.1
PHYSICISTS	6,958	7,130	2.5	4,551	4,670	2.6	2,407	2,460	2.2
OTHER PHYSICAL SCIENTISTS	1,007	961	-4.6	559	558	-.2	448	403	-10.0
ENVIRONMENTAL SCIENTISTS	6,150	6,208	.9	4,829	4,925	2.0	1,321	1,283	-2.9
ATMOSPHERIC SCIENTISTS	669	688	2.8	580	561	-3.3	89	127	42.7
EARTH SCIENTISTS	3,739	3,799	1.6	3,045	3,088	1.4	694	711	2.4
OCEANOGRAPHERS	1,339	1,249	-6.7	912	913	.1	427	336	-21.3
OTHER ENVIRONMENTAL SCIENTISTS	403	472	17.1	292	363	24.3	111	109	-1.8
MATHEMATICAL AND COMPUTER SCIENTISTS	13,411	13,921	3.8	9,966	10,372	4.1	3,445	3,549	3.0
MATHEMATICIANS	9,381	9,453	.8	7,025	7,078	.8	2,356	2,375	.8
COMPUTER SCIENTISTS	4,030	4,468	10.9	2,941	3,294	12.0	1,089	1,174	7.8
LIFE SCIENTISTS	94,556	98,096	3.7	62,949	65,602	4.2	31,607	32,494	2.8
AGRICULTURAL SCIENTISTS	12,667	12,881	1.7	12,199	12,435	1.9	468	446	-4.7
BIOLOGICAL SCIENTISTS	29,415	29,652	.8	19,241	19,194	-.2	10,174	10,458	2.8
MEDICAL SCIENTISTS	48,760	51,121	4.8	28,635	30,603	6.9	20,125	20,518	2.0
OTHER LIFE SCIENTISTS	3,714	4,442	19.6	2,874	3,370	17.3	840	1,072	27.6
PSYCHOLOGISTS	8,212	8,212	-	5,897	5,933	.6	2,315	2,279	-1.6
SOCIAL SCIENTISTS	22,896	23,162	1.2	17,213	17,414	1.2	5,683	5,748	1.1
ECONOMISTS	6,712	6,776	1.0	4,904	4,967	1.3	1,808	1,809	.1
POLITICAL SCIENTISTS	4,583	4,695	2.4	3,216	3,250	1.1	1,367	1,445	5.7
SOCIOLOGISTS	5,254	5,259	.1	4,034	4,069	.9	1,220	1,190	-2.5
OTHER SOCIAL SCIENTISTS	6,347	6,432	1.3	5,059	5,128	1.4	1,288	1,304	1.2

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-29. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	40,657	43,726	7.5%	24,890	26,011	4.5%	15,767	17,715	12.4%
ENGINEERS	4,142	4,150	.2	2,850	2,663	-6.6	1,292	1,487	15.1
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	115	134	16.5	50	71	42.0	65	63	-3.1
CHEMICAL ENGINEERS	275	274	-.4	211	192	-9.0	64	82	28.1
CIVIL ENGINEERS	610	710	16.4	406	494	21.7	204	216	5.9
ELECTRICAL ENGINEERS	900	882	-2.0	499	432	-13.4	401	450	12.2
MECHANICAL ENGINEERS	651	697	7.1	409	399	-2.4	242	298	23.1
OTHER ENGINEERS	1,591	1,453	-8.7	1,275	1,075	-15.7	316	378	19.6
PHYSICAL SCIENTISTS	2,559	2,372	-7.3	1,773	1,490	-16.0	786	882	12.2
ASTRONOMERS	64	79	23.4	47	55	17.0	17	24	41.2
CHEMISTS	1,383	1,326	-4.1	1,053	929	-11.8	330	397	20.3
PHYSICISTS	839	736	-12.3	567	419	-26.1	272	317	16.5
OTHER PHYSICAL SCIENTISTS	273	231	-15.4	106	87	-17.9	167	144	-13.8
ENVIRONMENTAL SCIENTISTS	793	792	-.1	597	576	-3.5	196	216	10.2
ATMOSPHERIC SCIENTISTS	99	71	-28.3	94	70	-25.5	5	1	-80.0
EARTH SCIENTISTS	497	526	5.8	390	405	3.8	107	121	13.1
OCEANOGRAPHERS	100	79	-21.0	78	54	-30.8	22	25	13.6
OTHER ENVIRONMENTAL SCIENTISTS	97	116	19.6	35	47	34.3	62	69	11.3
MATHEMATICAL AND COMPUTER SCIENTISTS	3,163	3,536	11.8	1,980	2,043	3.2	1,183	1,493	26.2
MATHEMATICIANS	2,090	2,343	12.1	1,426	1,449	1.6	664	894	34.6
COMPUTER SCIENTISTS	1,073	1,193	11.2	554	594	7.2	519	599	15.4
LIFE SCIENTISTS	22,098	25,174	13.9	12,986	14,847	14.3	9,112	10,327	13.3
AGRICULTURAL SCIENTISTS	1,056	1,230	16.5	1,026	1,193	16.3	30	37	23.3
BIOLOGICAL SCIENTISTS	3,524	3,433	-2.6	2,506	2,238	-10.7	1,018	1,195	17.4
MEDICAL SCIENTISTS	16,582	19,235	16.0	8,705	10,412	19.6	7,877	8,823	12.0
OTHER LIFE SCIENTISTS	936	1,276	36.3	749	1,004	34.0	187	272	45.5
PSYCHOLOGISTS	2,227	2,207	-.9	1,115	1,074	-3.7	1,112	1,133	1.9
SOCIAL SCIENTISTS	5,675	5,495	-3.2	3,589	3,318	-7.6	2,086	2,177	4.4
ECONOMISTS	1,515	1,518	.2	868	834	-3.9	647	684	5.7
POLITICAL SCIENTISTS	1,039	1,107	6.5	527	552	4.7	512	555	8.4
SOCIOLOGISTS	1,449	1,280	-11.7	1,013	761	-24.9	436	519	19.0
OTHER SOCIAL SCIENTISTS	1,672	1,590	-4.9	1,181	1,171	-.8	491	419	-14.7

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-30. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	348,771	334,317	267,063	259,544	81,708	74,773	298,698	
1 HARVARD UNIVERSITY	5,992	5,822	3,956	3,861	2,036	1,961	5,382	5,159
2 OHIO STATE UNIVERSITY	4,232	3,734	1,884	2,050	2,348	1,684	2,182	3,231I
3 UNIV OF WIS-MADISON	3,729	3,807	3,116	3,143	613	664	3,474	3,525
4 UNIVERSITY OF MINNESOTA	3,534	3,655	3,003	3,081	531	574	3,012	3,114
5 JOHNS HOPKINS UNIVERSITY	3,488	3,323	3,327	3,157	161	166	3,404I	3,228
6 LOUISIANA STATE UNIV	3,072	3,053	2,559	2,498	513	555	2,682	2,626
7 UNIVERSITY OF MICHIGAN	3,064	3,316	2,458	2,621	606	695	2,733	2,943
8 UNIV OF CAL LOS ANGELES	2,899	2,503	2,094	1,444	805	1,059	2,500	
9 UNIV OF ILL URBANA	2,563E	2,563	2,246E	2,246	317E	317	1,313E	1,313
10 UNIVERSITY OF WASHINGTON	2,520	2,521	1,941	1,966	579	555	2,236	2,254
TOTAL, 1ST 10 INSTS.	35,093	34,297	26,584	26,067	8,509	8,230	28,921	
11 CORNELL UNIVERSITY	2,415	2,486	2,285	2,331	130	155	2,344I	2,401I
12 UNIVERSITY OF FLORIDA	2,376	2,257	2,205	2,082	171	175	2,260	2,144
13 UNIV OF CAL BERKELEY	2,315	2,086	1,504	1,233	811	853	1,884	
14 YALE UNIVERSITY	2,305	2,093	1,910	1,794	395	299	2,113	1,943I
15 PENNSYLVANIA STATE UNIV	2,283	2,227	2,071	2,048	212	179	2,171	2,117
16 TEXAS A & M UNIVERSITY	2,279	2,216	2,279	2,216	0	0	2,279	2,216
17 COLUMBIA UNIV MAIN DIV	2,227	2,188	1,766	1,744	461	444	1,919	1,893
18 UNIVERSITY OF KENTUCKY	2,166	2,215	1,892	1,926	274	289	1,984	2,005
19 PURDUE UNIVERSITY	2,151	2,034	1,778	1,742	373	292	1,921	1,848
20 UNIV OF CAL SAN FRANCISCO	2,113	1,319	1,332	899	781	420	1,741	
TOTAL, 1ST 20 INSTS.	57,723	55,418	45,606	44,082	12,117	11,336	49,539	
21 MASS INST OF TECHNOLOGY	2,097	2,319	1,896	2,119	201	200	1,996	2,224
22 NEW YORK UNIVERSITY	2,086	2,136	1,392	1,425	694	711	1,620I	1,656
23 UNIVERSITY OF PITTSBURGH	2,042E	1,988E	1,733E	1,703E	309E	285E	1,887E	1,812I
24 UNIV OF CAL DAVIS	2,033	1,585	1,562	1,213	471	372	1,813	
25 UNIVERSITY OF UTAH	2,022	1,965	1,784	1,733	238	232	1,872	1,801
26 INDIANA UNIV-ALL CAMPUSES	1,983	1,974I	1,442	1,442I	541	532I	1,646I	1,634I
27 UNIV OF TEXAS AT AUSTIN	1,920	1,912	1,671	1,699	249	213	1,790	1,803
28 UNIVERSITY OF IOWA	1,911	1,914	1,594	1,588	317	326	1,781	1,791
29 UNIV OF PENNSYLVANIA	1,896	1,839	1,546	1,491	350	348	1,672	1,629
30 MICHIGAN STATE UNIVERSITY	1,811	1,812	1,701	1,695	110	117	1,748	1,740
TOTAL, 1ST 30 INSTS.	77,524	74,862	61,927	60,190	15,597	14,672	67,367	
31 N C STATE UNIV AT RALEIGH	1,755	1,703	1,622	1,588	133	115	1,670	1,622
32 WASHINGTON UNIVERSITY	1,661	1,618	1,530	1,480	131	138	1,585	1,541
33 DUKE UNIVERSITY	1,653E	1,653	1,563E	1,563	90E	90	1,601E	1,601
34 HOWARD UNIVERSITY	1,631I	1,612I	979I	979I	652I	623I	1,129I	1,116I
35 WAYNE STATE UNIVERSITY	1,627	1,688	1,088	1,056	539	632	1,293	1,293
36 UNIV OF SOUTHERN CAL	1,606E	1,606	1,274E	1,274	332E	332	1,368	1,368
37 RUTGERS THE ST UNIV OF NJ	1,602	1,566	1,564	1,527	38	39	1,574	1,539
38 UNIVERSITY OF CONNECTICUT	1,593	1,573	1,337	1,293	256	280	1,452	1,416
39 UNIVERSITY OF COLORADO	1,583	1,493	1,425	1,382	158	111	1,491	1,445
40 UNIV OF CAL SAN DIEGO	1,565	1,040	1,270	924	295	116	1,436	
TOTAL, 1ST 40 INSTS.	93,800	90,414	75,579	73,256	18,221	17,158	81,458	
41 UNIVERSITY OF KANSAS	1,554I	1,536I	1,272I	1,262I	282I	274I	1,427I	1,410I
42 CASE WESTERN RESERVE UNIV	1,549	1,503	1,307	1,270	242	233	1,393	1,351
43 UNIVERSITY OF ARIZONA	1,543	1,696	1,392	1,527	151	169	1,457	1,603
44 CUNY MT SINAI SCH OF MED	1,462I	1,454I	1,192I	1,192I	270I	262I	1,266I	1,260I
45 IOWA ST U OF SCI & TECH	1,435	1,622	1,300	1,482	135	140	1,376	1,544
46 UNIV OF MD COLLEGE PARK	1,434	1,397	1,207	1,173	227	224	1,320	1,257
47 NORTHEASTERN UNIVERSITY	1,432	429	678	350	754	79	961	377
48 UNIVERSITY OF CHICAGO	1,399	1,366	1,320	1,315	79	51	1,333	1,336
49 STANFORD UNIVERSITY	1,362	1,364	1,102	1,102	260	262	1,095	1,119
50 UNIV OF MISSOURI COLUMBIA	1,351	1,367	1,240	1,256	111	111	1,281	1,295
TOTAL, 1ST 50 INSTS.	108,321	104,148	87,589	85,185	20,732	18,963	94,879	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-30. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1981 AND JANUARY 1982

- CONTINUED

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 UNIVERSITY OF CINCINNATI	1,348	1,242	1,123	996	225	246	1,187	1,040
52 UNIV OF HAWAII-MANOA	1,323	1,287	1,043	1,013	280	274	1,145	1,118
53 TEMPLE UNIVERSITY	1,312	1,464	1,120	1,099	192	365	1,271I	1,388I
54 BOSTON UNIVERSITY	1,310	1,272	886	890	424	382	1,020	1,010
55 NORTHWESTERN UNIVERSITY	1,307	1,348	1,111	1,091	196	257	1,206	1,220
56 UNIVERSITY OF NEW MEXICO	1,290	1,215	952	883	338	332	1,092	1,033
57 UNIV OF NC AT CHAPEL HILL	1,239	1,222	1,206	1,196	33	26	1,222	1,207
58 KANS ST U - AG & APP SCI	1,237	1,142	1,050	983	187	159	1,145	1,063
59 SUNY AT BUFFALO	1,223I	1,207I	899I	892I	324I	315I	1,003I	990I
60 UNIVERSITY OF ROCHESTER	1,199E	1,199	1,129E	1,129	70E	70	1,147E	1,147
TOTAL, 1ST 60 INSTS.	121,109	116,746	98,108	95,357	23,001	21,389	106,321	
61 UNIV ALABAMA BIRMINGHAM	1,192	1,232	1,049	1,087	143	145	1,088	1,131
62 UNIV OF SOUTH CAROLINA	1,178	1,141	1,032	1,001	146	140	1,086	1,050
63 UNIVERSITY OF GEORGIA	1,172	1,125	1,124	1,084	48	41	1,146	1,102
64 UNIVERSITY OF MIAMI	1,171	1,148	1,074	1,059	97E	89	1,111	1,098
65 SUNY AT STONY BROOK	1,166	1,064	1,052	963	114	101	1,090	994
66 CMTY COL ALLEGHENY COUNTY	1,161I	1,028I	981	941	1,063I	936I	881I	780I
67 GEORGIA INSTITUTE OF TECH	1,156	1,162	1,055	1,097	101	65	1,103E	1,124
68 WEST VIRGINIA UNIVERSITY	1,156	1,132	1,021	1,008	135	124	1,077	1,054
69 OREGON STATE UNIVERSITY	1,155	1,162	1,042	1,071	113	91	1,100	1,105
70 NEW MEXICO STATE UNIV	1,151	1,143	1,071	1,060	80	83	1,110	1,096
TOTAL, 1ST 70 INSTS.	132,767	127,083	107,726	104,881	25,041	23,202	117,117	
71 GEORGE WASHINGTON UNIV	1,140	1,184	612	629	528	555	824	854
72 UNIVERSITY OF VIRGINIA	1,127	867	1,047	867	80	0	1,065I	867
73 YESHIVA UNIVERSITY	1,122	1,122	866E	866	256E	256	988	988
74 U TEX HLTH SCI CTR HOUSTN	1,103	1,069I	886	852I	217	217I	975	944I
75 VA POLYTECH INST & ST U	1,097	1,120	1,089	1,111	8	9	1,092	1,109
76 COLORADO STATE UNIVERSITY	1,084	1,057	1,037	1,028	47	29	1,039	1,061
77 U TEX HLTH SCI CTR S ANTO	1,070	929	926	804	144	125	971	841
78 U TEX HLTH SCI CTR DALLAS	1,049	1,029	778	763	271	266	865	855
79 VANDERBILT UNIVERSITY	1,035	885	892	747	143	138	921	783
80 AUBURN UNIVERSITY	1,026	1,000	935	919	91	81	979	950
TOTAL, 1ST 80 INSTS.	143,620	138,345	116,794	113,467	26,826	24,878	126,838	
81 UNIV OF MD BALT PROF SCH	1,024E	1,014	646E	640	378E	374	761E	753
82 UNIV OF ILL MED CTR CHGO	997	935	722	665	275	270	838	784
83 COL OF MED & DENT OF N J	985E	985	754E	754	231E	231	848E	848
84 SOUTHERN ILL U-CARBONDALE	982	957	793	761	189	196	847	815
85 U TENNESSEE KNOXVILLE	977	1,020	850	883	127	137	901	934
86 UNIV OF NEBRASKA-LINCOLN	954	926	800	792	154	134	905	887
87 EMORY UNIVERSITY	952I	948I	806I	806I	146I	142I	837I	833I
88 UNIV OF P R-RIO PIEDRAS	943	768	849	739	94	29	898	753
89 MED UNIV OF SO CAROLINA	931E	931	770E	770	161E	161	729	729
90 GEORGETOWN UNIVERSITY	903	882	833	817	70	65	869	850
TOTAL, 1ST 90 INSTS.	153,268	147,711	124,617	121,094	28,651	26,617	135,274	
91 WASHINGTON STATE UNIV	901	1,398I	468	1,045I	433	353I	710I	675
92 VIRGINIA COMMONWLTH UNIV	899	1,202	832	1,000	67	202	862	1,052
93 UNIV OF CAL IRVINE	895	614	699	520	196	94	894	
94 CLEMSON UNIVERSITY	894	894	882	882	12	12	888	888
95 BAYLOR COL OF MEDICINE	892	834	769	733	123	101	794E	784
96 UNIV OF TEX CANCER CENTER	890	902I	839	822I	51	80I	865	826I
97 NEW YORK MEDICAL COLLEGE	854	873	619	617	235	256	673	746
98 SUNY DOWNSTATE MED CTR	833I	824I	693I	688I	140I	136I	749I	741I
99 UNIV OF MASS AT AMHERST	830	840	785	788	45	52	807	812
100 U OF ARKANSAS MED SCI CAM	805	749	731	662	74	87	755	689
TOTAL, 1ST 100 INSTS.	161,961	156,841	131,934	128,851	30,027	27,990	143,272	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-30. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
101 UNIVERSITY OF LOUISVILLE	805	795	595	591	210	204	658	674
102 UNIV OREGON HLTH SCI CTR	781I	770	515I	511	266I	259	610I	602
103 OKLAHOMA STATE UNIVERSITY	774	712	705	661	69	51	740	684
104 TUFTS UNIVERSITY	773	691	344	347	429	344	482	428
105 ARIZONA STATE UNIVERSITY	759	725	725	691	34	34	737	708
106 TEXAS TECH UNIVERSITY	750	707	630	605	120	102	684	644
107 UNIVERSITY OF MISSISSIPPI	747	727	614	589	133	138	635I	596I
108 FAIRLEIGH DICKINSON UNIV	746E	746	292E	292	454E	454	416E	416
109 MISSISSIPPI STATE UNIV	724	660	700	642	24	18	712	651
110 UNIV TENN CTR HEALTH SCI	719	746	552	576	167	170	595	622
TOTAL, 1ST 110 INSTS.	169,539	164,120	137,606	134,356	31,933	29,764	149,545	
111 LOMA LINDA UNIVERSITY	719I	712I	482I	482I	237I	230I	614I	608I
112 UNIV OF OKLA HLTH SCI CTR	718	857	558	705	160	152	562	776
113 UNIV OF SOUTH FLORIDA	706	801	583	607	123	194	621	668
114 UNIV OF CAL RIVERSIDE	698	438	594	375	104	63	666	
115 LOYOLA UNIV - CHICAGO	697	616	412	334	285	282	507	428
116 NE OHIO UNIVS MED SCHOOL	697	68	65	63	632	5	72	66
117 SAN JOSE STATE UNIVERSITY	684	675	372	356	312	319	409	356
118 FLORIDA STATE UNIVERSITY	681	696	651	608	30	88	663	660
119 UNIV OF ARK FAYETTEVILLE	677	657	609	597	68	60	651	618
120 U OF HOUSTON CENTRAL CAM	672	686	516	503	156	183	570	567
TOTAL, 1ST 120 INSTS.	176,488	170,326	142,448	138,986	34,040	31,340	154,882	
121 CITY COLLEGES OF CHICAGO	659	661	659	661	0	0	659I	661I
122 BRIGHAM YOUNG UNIVERSITY	656	654	580	585	76	69	602	607
123 CHAPMAN COLLEGE	639I	623I	451	431	594I	580I	240I	234I
124 MEDICAL COL OF GEORGIA	630	634	480	492	150	142	555	563
125 UNIV OF VT & ST AGRIC COL	628	631	575	582	53	49	595	597
126 UNIVERSITY OF IDAHO	623	648	589	615	34	33	606	631
127 DARTMOUTH COLLEGE	620	617	313	314	307	303	391	373
128 CAL POLY ST U SAN LUIS OB	615	609	520	510	95	99	550	545
129 CARNEGIE-MELLON UNIV	615I	613I	546I	546I	69I	67I	574I	572I
130 UNIV OF ILL CHICAGO CIR	613	643	528	527	85	116	556	564
TOTAL, 1ST 130 INSTS.	182,786	176,659	147,283	143,861	35,503	32,798	160,213	
131 ST LOUIS UNIVERSITY	609	636	490	514	119	122	530	553
132 UNIVERSITY OF WYOMING	609	560	570	491	39	69	589	525
133 INTER AM U P R-SAN GERMAN	599	574	235	238	364	336	398	373
134 UNIV OF P R-MED SCI CMPUS	592	577	509	494	83	83	560	536
135 TULANE UNIVERSITY	591	602	528	541	63	61	548	486
136 UNIVERSITY OF DELAWARE	585	578	567	556	18	22	576	566
137 CALIF ST UNIV LONG BEACH	580I	577	329I	323	251I	254	410I	408
138 UNIV OF CAL SANTA BARBARA	575	546	423	365	152	181	503	
139 SYRACUSE UNIVERSITY	575	490	498	437	77	53	534	465
140 CUYAHOGA CMTY COL DIST	573I	519I	191I	183I	382I	336I	326I	296I
TOTAL, 1ST 140 INSTS.	188,674	182,318	151,623	148,003	37,051	34,315	165,189	
141 ST LOUIS COMMUNITY COL	571	88I	234	48I	337	40I	352	69I
142 INTER AM U P R-CENTRAL	570	574	254	238	316	336	379I	373
143 SAN DIEGO STATE UNIV	568I	560	384I	381	184I	179	433I	423
144 PHILA COL OSTEOPATHIC MED	566	478	103	103	463	375	164	1
145 UNIV OF WIS-MILWAUKEE	560	572	411	404	149	168	461	460
146 PRINCETON UNIVERSITY	554	582	504	529	50	53	532	558
147 NORTHERN VA COMMUNITY COL	554	243I	223	180I	331	63I	330	201I
148 MARQUETTE UNIVERSITY	553	512	307	295	246	217	386	356
149 MIAMI-DADE CMTY COLLEGE	549	532	326	338	223	194	427	442
150 CALIFORNIA INST OF TECH	545	571	528	556	17	15	537	564
TOTAL, 1ST 150 INSTS.	194,264	187,030	154,897	151,075	39,367	35,955	169,192	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-30. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
151 MONTANA STATE UNIVERSITY	541I	535	475I	471	66I	64	509I	504I
152 CALIF ST POLY UNIV POMONA	541	461	316	282	225	179	394	344
153 CALIF ST UNIV SACRAMENTO	534I	529	386I	379	148I	150	432I	428
154 WRIGHT STATE UNIVERSITY	523	474	433	393	90	81	439	401
155 LONG ISLAND UNIVERSITY	509I	503	303I	303	206I	200	373I	369
156 SOUTH DAKOTA STATE UNIV	501	490	480	466	21	24	492	478
157 CALIF ST UNIV FULLERTON	498	462I	268	288I	230	174I	302	405I
158 SUNY AT ALBANY	493	537	424	457	69	80	444	485
159 KENT STATE UNIVERSITY	488	466	436	427	52	39	453	438
160 CALIF ST UNIV NORTHRIDGE	487	520	304	301	183	219	353	368
TOTAL, 1ST 160 INSTS.	199,379	192,007	158,722	154,842	40,657	37,165	173,386	
161 NORTH DAKOTA STATE UNIV	487	445	480	435	7	10	484	439
162 WEST VALLEY COLLEGE	479I	431I	136I	130I	343I	301I	242I	219I
163 WAKE FOREST UNIVERSITY	479	472	466	462	13	10	470	467
164 EAST CAROLINA UNIVERSITY	473	414	413	350	60	64	457	406
165 OHIO UNIVERSITY	467	461	372	366	95	95	416	403
166 CHEYNEY STATE COLLEGE	456	57I	456	57I	0	0I	456	57I
167 MONTGOMERY COLLEGE	455I	413I	167I	160I	288I	253I	270I	246I
168 UTAH STATE UNIVERSITY	451	453	416	422	35	31	432	436
169 U TEX MED BRNCH GALVESTON	450	402I	450	402I	0	0I	450	402I
170 SINCLAIR COMMUNITY COL	449	460	152	145	297	315	224E	187
TOTAL, 1ST 170 INSTS.	204,025	196,015	162,230	157,771	41,795	38,244	177,291	
171 CALIF ST UNIV LOS ANGELES	444	431	251	252	193	179	318	313
172 SAN FRANCISCO STATE UNIV	443	548	245	268	198	280	320	374
173 UNIVERSITY OF DAYTON	443	485	350	383	93	102	375	415
174 UNIV OF MAINE ORONO	436	432	406	407	30	25	419	420
175 ROCKEFELLER UNIVERSITY	432	415	413	401	19	14	423	408
176 CUNY CITY COLLEGE	430	401I	350	336I	80	65I	379	385I
177 CUNY QUEENS COLLEGE	427	434	256	252	171	182	328	334
178 RENSSELAER POLYTECH INST	427	411	391	368	36	43	404	386
179 NEW YORK INST TECHNOLOGY	424	402	198	184	226	218	274	261
180 SUNY NASSAU CMTY COLLEGE	421	339	242	183	179	156	363I	284
TOTAL, 1ST 180 INSTS.	208,352	200,313	165,332	160,805	43,020	39,508	180,895	
181 THE UNIVERSITY OF ALABAMA	420	438	365	385	55	53	359	401
182 ILLINOIS STATE UNIVERSITY	420	434	364	376	56	58	386	367
183 WESTERN MICHIGAN UNIV	420	413	345	325	75	88	359	343
184 UNIV OF RHODE ISLAND	418	409	418	409	0	0	418	409I
185 UNIVERSITY OF OREGON MAIN	415	386	268	261	147	125	333	323
186 U OF NEB MED CTR AT OMAHA	412I	407I	345I	342I	67I	65I	370I	366I
187 CUNY BROOKLYN COLLEGE	411	480	262	314	149	166	314	326
188 INST OF AGRI UNIV OF TENN	405	444	405	444	0	0	405	444
189 UNIV OF MISSOURI KAN CITY	403	340	298	299	105	41	326I	317I
190 UNIVERSITY OF NOTRE DAME	402	380	364	347	38	33	383	363
TOTAL, 1ST 190 INSTS.	212,478	204,444	168,766	164,307	43,712	40,137	184,552	
191 PORTLAND STATE UNIVERSITY	400	351	262	241	138	110	297	275
192 CUNY N Y CITY CMTY COL	400	254	239	145	161	109	299	207I
193 UNIV OF TEX AT ARLINGTON	400	376	316	293	84	83	343	316
194 NORTHERN ILLINOIS UNIV	398	419	351	352	47	67	370	363
195 SAN DIEGO EVENING COLLEGE	397I	351I	24I	23I	373I	328I	295I	261I
196 BROWN UNIVERSITY	396	394	372	370	24	24	383	381
197 UNIV OF SOUTH ALABAMA	393	257	317	236	76	21	338	236
198 N J INST OF TECHNOLOGY	392	386	265	245	127	141	302	285
199 UNIV OF NEW HAMPSHIRE	391	386	374	342	17	44	316	355
200 US AIR FORCE ACADEMY	390	418I	390	418I	0	0I	350	418I
TOTAL, 1ST 200 INSTS.	216,435	208,036	171,676	166,972	44,759	41,064	187,956	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-30. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
201 SAN ANTONIO CMTY COL DIST	390	376	238	206	152	170	328I	295I
202 CALIF STATE UNIV FRESNO	388I	384	294I	289	94I	95	318I	203
203 WICHITA STATE UNIVERSITY	384	369	299	293	85	76	325	332
204 AMERICAN UNIVERSITY	381	372	205	192	176	180	264	259
205 UNIVERSITY OF TOLEDO	379	368	274	269	105	99	315	308
206 FLORIDA INST OF TECH	376	358	157	142	219	216	244	218
207 US MILITARY ACADEMY	372I	360I	372I	360I	0I	0I	372I	360I
208 METROPOLITAN STATE COL	-C	300	-C	163	-C	137	-C	197
209 SUNY UPSTATE MEDICAL CTR	371I	367I	352I	349I	19I	18I	361I	357I
210 UNIV OF MIS-EXTENSION DIV	368	414I	324	387I	44	27I	344	393I
TOTAL, 1ST 210 INSTS.	220,216	211,704	174,372	169,622	45,844	42,082	191,068	
211 MICHIGAN TECH UNIVERSITY	366	363	352	347	14	16	358	354
212 RICE UNIVERSITY	363	306	331	276	32	30	350	291
213 MIAMI UNIVERSITY (OHIO)	362	364	344	294	18	70	351	328
214 CALIF STATE UNIV CHICO	361	381	234	287	127	94	281	437I
215 RUSH UNIVERSITY	360E	360	287E	287	73E	73	317E	323
216 UNIV OF OKLAHOMA NORMAN	359	357	359	343	0	14	359	348
217 OLD DOMINION UNIVERSITY	358	391	305	277	53	114	322	283
218 CREIGHTON UNIVERSITY	351	360	266	277	85	83	288	304
219 CUNY BERNARD BARUCH COL	350	342	163	151	187	191	206	211
220 THOMAS JEFFERSON UNIV	350	342	315	277	35	65	323	292
TOTAL, 1ST 220 INSTS.	223,796	215,270	177,328	172,438	46,468	42,832	194,225	
221 YOUNGSTOWN ST UNIVERSITY	349	342	202	217	147	125	263	277
222 UNIVERSITY OF DENVER	345	318	321	295	24	23	333	306
223 PACE UNIVERSITY	345	277	93	88	252	189	241	168
224 TARRANT COUNTY JUNIOR COL	341I	314I	185I	177I	156I	137I	255I	235I
225 UNIV OF N C AT CHARLOTTE	341	297	255	204	86	93	293	239
226 SUNY AG & TECH FARMNGDALE	340	385	192	202	148	183	228	242
227 HILLSBOROUGH CMTY COLLEGE	339I	306	100I	96	239I	210	187I	169
228 US NAVAL ACADEMY	338	322	338	322	0	0	338	322
229 HAHNEMANN MED COL & HOSP	337I	336I	308I	308I	29I	28I	323I	322I
230 UNIV OF NEVADA - RENO	336	336	262	262	74	74	282	282
TOTAL, 1ST 230 INSTS.	227,207	218,503	179,584	174,609	47,623	43,894	196,972	
231 UNIVERSITY OF N DAKOTA	332I	329I	294I	292I	38I	37I	308I	305I
232 UNIVERSITY OF AKRON	329	323	235	231	94	92	269	257
233 SUNY AT BINGHAMTON	328	281	262	241	66	40	276	253
234 MEMPHIS STATE UNIVERSITY	323	297	260	258	63	39	269	270
235 CUNY HUNTER COLLEGE	323	373I	209	199I	114	174I	253	286I
236 UNIV OF CENTRAL FLORIDA	321	242	262	184	59	58	321	202
237 ILLINOIS INST OF TECH	321	362	215	198	106	164	251	252
238 MERCY COLLEGE	320I	292I	68I	66I	252I	226I	137I	126I
239 POLYTECHNIC INST OF N Y	-C	308	-C	198	-C	110	-C	217I
240 KEAN COL OF NEW JERSEY	317E	317	137E	137	180E	180	200E	198
TOTAL, 1ST 240 INSTS.	230,438	221,627	181,729	176,613	48,709	45,014	199,488	
241 DREXEL UNIVERSITY	316	297	232	228	84	69	268	257
242 PORTLAND COMMUNITY COL	316I	289	142I	136	174I	153	195I	180
243 UNIV OF P R-MAYAGUEZ	315	340	275	300	40	40	288	318
244 SUNY ERIE CMTY COLLEGE	313I	286I	132I	127I	181I	159I	183I	167I
245 GEORGIA STATE UNIVERSITY	309	318	283	283	26	35	296	304
246 SAN DIEGO CITY COLLEGE	308I	276	70I	67	238I	209	116I	103
247 CLEVELAND STATE UNIV	305	280	246	217	59	63	262	233
248 SUNY SUFFOLK CO CMTY COL	303I	277	131I	126	172I	151	191I	175I
249 CALIF ST UNIV HAYWARD	303	271	234	203	69	68	261	229
250 UNIV OF MISSOURI ROLLA	301	345	298	317	3	28	300	323
TOTAL, 1ST 250 INSTS.	233,527	224,606	183,772	178,617	49,755	45,989	201,852	
TOTAL, ALL OTHER INSTS.	115,244	109,711	83,291	80,927	31,953	28,784	96,846	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-31. -- SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	231,828	223,712	188,102	183,055	43,726	40,657	203,744	
1 HARVARD UNIVERSITY	5,992	5,822	3,956	3,861	2,036	1,961	5,382	5,159
2 OHIO STATE UNIVERSITY	4,232	3,734	1,884	2,050	2,348	1,684	2,182	3,231I
3 UNIV OF WIS-MADISON	3,729	3,807	3,116	3,143	613	664	3,474	3,525
4 UNIVERSITY OF MINNESOTA	3,534	3,655	3,003	3,081	531	574	3,012	3,114
5 JOHNS HOPKINS UNIVERSITY	3,488	3,323	3,327	3,157	161	166	3,404I	3,228
6 LOUISIANA STATE UNIV	3,072	3,053	2,559	2,498	513	555	2,682	2,626
7 UNIVERSITY OF MICHIGAN	3,064	3,316	2,458	2,621	606	695	2,733	2,943
8 UNIV OF CAL LOS ANGELES	2,899	2,503	2,094	1,444	805	1,059	2,500	
9 UNIV OF ILL URBANA	2,563E	2,563	2,246E	2,246	317E	317	1,313E	1,313
10 UNIVERSITY OF WASHINGTON	2,520	2,521	1,941	1,966	579	555	2,236	2,254
TOTAL, 1ST 10 INSTS.	35,093	34,297	26,584	26,067	8,509	8,230	28,521	
11 CORNELL UNIVERSITY	2,415	2,486	2,285	2,331	130	155	2,344I	2,401I
12 UNIVERSITY OF FLORIDA	2,376	2,257	2,205	2,082	171	175	2,260	2,144
13 UNIV OF CAL BERKELEY	2,315	2,086	1,504	1,233	811	853	1,884	
14 YALE UNIVERSITY	2,305	2,093	1,910	1,794	395	299	2,113	1,943I
15 PENNSYLVANIA STATE UNIV	2,283	2,227	2,071	2,048	212	179	2,171	2,117
16 TEXAS A & M UNIVERSITY	2,279	2,216	2,279	2,216	0	0	2,279	2,216
17 COLUMBIA UNIV MAIN DIV	2,227	2,188	1,766	1,744	461	444	1,919	1,893
18 UNIVERSITY OF KENTUCKY	2,166	2,215	1,892	1,926	274	289	1,984	2,005
19 PURDUE UNIVERSITY	2,151	2,034	1,778	1,742	373	292	1,921	1,848
20 UNIV OF CAL SAN FRANCISCO	2,113	1,319	1,332	899	781	420	1,741	
TOTAL, 1ST 20 INSTS.	57,723	55,418	45,606	44,082	12,117	11,336	49,539	
21 MASS INST OF TECHNOLOGY	2,097	2,319	1,896	2,119	201	200	1,996	2,224
22 NEW YORK UNIVERSITY	2,086	2,136	1,397	1,425	694	711	1,620I	1,656
23 UNIVERSITY OF PITTSBURGH	2,042E	1,988E	1,733E	1,703E	309E	285E	1,887E	1,812I
24 UNIV OF CAL DAVIS	2,033	1,585	1,562	1,213	471	372	1,813	
25 UNIVERSITY OF UTAH	2,022	1,965	1,784	1,733	238	232	1,872	1,801
26 INDIANA UNIV-ALL CAMPUSES	1,983	1,974I	1,442	1,442I	541	532I	1,646I	1,634I
27 UNIV OF TEXAS AT AUSTIN	1,920	1,912	1,671	1,699	249	213	1,790	1,803
28 UNIVERSITY OF IOWA	1,911	1,914	1,594	1,558	317	326	1,781	1,791
29 UNIV OF PENNSYLVANIA	1,896	1,839	1,546	1,491	350	348	1,672	1,629
30 MICHIGAN STATE UNIVERSITY	1,811	1,812	1,701	1,695	110	117	1,748	1,740
TOTAL, 1ST 30 INSTS.	77,524	74,862	61,927	60,190	15,597	14,672	67,367	
31 N C STATE UNIV AT RALEIGH	1,755	1,703	1,622	1,588	133	115	1,670	1,622
32 WASHINGTON UNIVERSITY	1,661	1,618	1,530	1,480	131	138	1,585	1,541
33 DUKE UNIVERSITY	1,653E	1,653	1,563E	1,563	90E	90	1,601E	1,601
34 HOWARD UNIVERSITY	1,631I	1,612I	979I	979I	652I	633I	1,129I	1,116I
35 WAYNE STATE UNIVERSITY	1,627	1,688	1,088	1,056	539	632	1,293	1,293
36 UNIV OF SOUTHERN CAL	1,606E	1,606	1,274E	1,274	332E	332	1,368	1,368
37 RUTGERS THE ST UNIV OF NJ	1,602	1,566	1,564	1,527	38	39	1,574	1,539
38 UNIVERSITY OF CONNECTICUT	1,593	1,573	1,337	1,293	256	280	1,452	1,416
39 UNIVERSITY OF COLORADO	1,583	1,493	1,425	1,382	158	111	1,491	1,345
40 UNIV OF CAL SAN DIEGO	1,565	1,040	1,270	924	295	116	1,436	
TOTAL, 1ST 40 INSTS.	93,800	90,414	75,579	73,256	18,221	17,158	81,968	
41 UNIVERSITY OF KANSAS	1,554I	1,536I	1,272I	1,262I	282I	274I	1,427I	1,410I
42 CASE WESTERN RESERVE UNIV	1,549	1,503	1,307	1,270	242	233	1,393	1,351
43 UNIVERSITY OF ARIZONA	1,543	1,696	1,392	1,527	151	169	1,457	1,603
44 CUNY MT SINAI SCH OF MED	1,462I	1,454I	1,192I	1,192I	270I	262I	1,266I	1,260I
45 IOWA ST U OF SCI & TECH	1,435	1,622	1,300	1,482	135	140	1,376	1,544
46 UNIV OF MD COLLEGE PARK	1,434	1,397	1,207	1,173	227	224	1,320	1,257
47 NORTHEASTERN UNIVERSITY	1,432	429	678	350	754	79	961	377
48 UNIVERSITY OF CHICAGO	1,399	1,366	1,320	1,315	79	51	1,333	1,336
49 STANFORD UNIVERSITY	1,362	1,364	1,102	1,102	260	262	1,095	1,119
50 UNIV OF MISSOURI COLUMBIA	1,351	1,367	1,240	1,256	111	111	1,281	1,295
TOTAL, 1ST 50 INSTS.	108,321	104,148	87,589	85,185	20,732	18,963	94,879	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-31. — SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 UNIVERSITY OF CINCINNATI	1,348	1,242	1,123	996	225	246	1,187	1,040
52 UNIV OF HAWAII-MANOA	1,323	1,287	1,043	1,013	280	274	1,145	1,118
53 TEMPLE UNIVERSITY	1,312	1,464	1,120	1,099	192	365	1,271I	1,388I
54 BOSTON UNIVERSITY	1,310	1,272	886	890	424	382	1,020	1,010
55 NORTHWESTERN UNIVERSITY	1,307	1,348	1,111	1,091	196	257	1,206	1,220
56 UNIVERSITY OF NEW MEXICO	1,290	1,215	952	883	338	332	1,092	1,033
57 UNIV OF NC AT CHAPEL HILL	1,239	1,222	1,206	1,196	33	26	1,222	1,207
58 KANS ST U - AG & APP SCI	1,237	1,142	1,050	983	187	159	1,145	1,063
59 SUNY AT BUFFALO	1,223I	1,207I	899I	892I	324I	315I	1,003I	9[illegible]I
60 UNIVERSITY OF ROCHESTER	1,199E	1,199	1,129E	1,129	70E	70	1,147E	1,147
TOTAL, 1ST 60 INSTS.	121,109	116,746	98,108	95,357	23,001	21,389	106,321	
61 UNIV ALABAMA BIRMINGHAM	1,192	1,232	1,049	1,087	143	145	1,088	1,231
62 UNIV OF SOUTH CAROLINA	1,178	1,141	1,032	1,001	146	140	1,086	1,050
63 UNIVERSITY OF GEORGIA	1,172	1,125	1,124	1,084	48	41	1,146	1,102
64 UNIVERSITY OF MIAMI	1,171	1,148	1,074	1,059	97E	89	1,111	1,098
65 SUNY AT STONY BROOK	1,166	1,064	1,052	963	114	101	1,090	994
66 WEST VIRGINIA UNIVERSITY	1,156	1,132	1,021	1,008	135	124	1,077	1,054
67 GEORGIA INSTITUTE OF TECH	1,156	1,162	1,055	1,097	101	65	1,103E	1,124
68 OREGON STATE UNIVERSITY	1,155	1,162	1,042	1,071	113	91	1,100	1,105
69 NEW MEXICO STATE UNIV	1,151	1,143	1,071	1,060	80	83	1,110	1,096
70 GEORGE WASHINGTON UNIV	1,140	1,184	612	629	528	555	824	854
TOTAL, 1ST 70 INSTS.	132,746	128,239	108,240	105,416	24,506	22,823	117,059	
71 UNIVERSITY OF VIRGINIA	1,127	867	1,047	867	80	0	1,065I	867
72 YESHIVA UNIVERSITY	1,122	1,122	866E	866	256E	256	988	988
73 U TEX HLTH SCI CTR HOUSTN	1,103	1,069I	886	852I	217	217I	975	944I
74 VA POLYTECH INST & ST U	1,097	1,120	1,089	1,111	8	9	1,092	1,109
75 COLORADO STATE UNIVERSITY	1,084	1,057	1,037	1,028	47	29	1,039	1,061
76 U TEX HLTH SCI CTR S ANTO	1,070	929	926	804	144	125	971	841
77 U TEX HLTH SCI CTR DALLAS	1,049	1,029	778	763	271	266	865	855
78 VANDERBILT UNIVERSITY	1,035	885	892	747	143	138	921	783
79 AUBURN UNIVERSITY	1,026	1,000	935	919	91	81	979	950
80 UNIV OF MD BALT PROF SCH	1,024E	1,014	646E	640	378E	374	761E	753
TOTAL, 1ST 80 INSTS.	143,483	138,331	117,342	114,013	26,141	24,318	126,717	
81 UNIV OF ILL MED CTR CHGO	997	935	722	665	275	270	838	784
82 COL OF MED & DENT OF N J	985E	985	754E	754	231E	231	848E	848
83 SOUTHERN ILL U-CARBONDALE	982	957	793	761	189	196	847	815
84 U TENNESSEE KNOXVILLE	977	1,020	850	883	127	137	901	934
85 UNIV OF NEBRASKA-LINCOLN	954	926	800	792	154	134	905	887
86 EMORY UNIVERSITY	952I	948I	806I	806I	146I	142I	837I	833I
87 UNIV OF P R-RIO PIEDRAS	943	768	849	739	94	29	898	753
88 MED UNIV OF SO CAROLINA	931E	931	770E	770	161E	161	729	729
89 GEORGETOWN UNIVERSITY	903	882	833	817	70	65	869	850
90 WASHINGTON STATE UNIV	901	1,398I	468	1,045I	433	353I	710I	675
TOTAL, 1ST 90 INSTS.	153,008	148,081	124,987	122,045	28,021	26,036	135,102	
91 VIRGINIA COMMONWLTH UNIV	899	1,202	832	1,000	67	202	862	1,052
92 UNIV OF CAL IRVINE	895	614	699	520	196	94	894	
93 CLEMSON UNIVERSITY	894	894	882	882	12	12	888	888
94 BAYLOR COL OF MEDICINE	892	834	769	733	123	101	794E	784
95 UNIV OF TEX CANCER CENTER	890	902I	839	822I	51	80I	865	826I
96 NEW YORK MEDICAL COLLEGE	854	873	619	617	235	256	673	746
97 SUNY DOWNSTATE MED CTR	833I	824I	693I	688I	140I	136I	749I	741I
98 UNIV OF MASS AT AMHERST	830	840	785	788	45	52	807	812
99 U OF ARKANSAS MED SCI CAM	805	749	731	662	74	87	755	689
100 UNIVERSITY OF LOUISVILLE	805	795	595	591	210	204	658	674
TOTAL, 1ST 100 INSTS.	161,605	156,608	132,431	129,348	29,174	27,260	143,048	
TOTAL, ALL OTHER INSTS.	70,223	67,104	55,671	53,707	14,552	13,397	60,696	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-32. -- ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	25,402	25,009	21,252	20,867	4,150	4,142	22,643	
1 JOHNS HOPKINS UNIVERSITY	967	934	955	922	12	12	962	926
2 GEORGIA INSTITUTE OF TECH	727	732	660	691	67	41	694E	705
3 MASS INST OF TECHNOLOGY	692	753	628	683	64	70	660	719
4 PENNSYLVANIA STATE UNIV	659	621	624	602	35	19	636	603
5 PURDUE UNIVERSITY	557	538	457	448	100	90	497	486
6 UNIV OF CAL BERKELEY	427	481	305	284	122	197	367	
7 UNIV OF ILL URBANA	423	423	387	387	36	36	208	208
8 UNIVERSITY OF MICHIGAN	423	485	336	388	87	97	384	445
9 TEXAS A & M UNIVERSITY	418	397	418	397	0	0	418	397
10 IOWA ST U OF SCI & TECH	385	358	349	329	36	29	364	345
TOTAL, 1ST 10 INSTS.	5,678	5,722	5,119	5,131	559	591	5,190	
11 STANFORD UNIVERSITY	375	389	280	294	95	95	291	297
12 UNIV OF WIS-MADISON	364	359	309	294	55	65	336	329
13 OHIO STATE UNIVERSITY	335	334	246	254	89	80	272	3171
14 CORNELL UNIVERSITY	328	296	315	289	13	7	3271	2951
15 N C STATE UNIV AT RALEIGH	313	300	291	275	22	25	299	283
16 VA POLYTECH INST & ST U	312	331	309	328	3	3	311	327
17 UNIVERSITY OF WASHINGTON	309	298	275	261	34	37	292	281
18 UNIV OF TEXAS AT AUSTIN	289	291	247	250	42	41	263	267
19 U TENNESSEE KNOXVILLE	283	280	251	238	32	42	275	253
20 NORTHEASTERN UNIVERSITY	270	141	153	116	117	25	197	124
TOTAL, 1ST 20 INSTS.	8,856	8,741	7,795	7,730	1,061	1,011	8,046	
21 UNIVERSITY OF MINNESOTA	254	247	197	196	57	51	214	206
22 UNIV OF CAL LOS ANGELES	252	366	188	149	64	217	218	
23 UNIV OF MD COLLEGE PARK	251	218	190	175	61	43	203	181
24 UNIVERSITY OF NEW MEXICO	232	225	162	149	70	76	192	176
25 RENSSELAER POLYTECH INST	223	216	205	201	18	15	212	206
26 CARNEGIE-MELLON UNIV	221I	220I	175I	175I	46I	45I	193I	192I
27 NEW MEXICO STATE UNIV	219	189	198	170	21	19	209	178
28 POLYTECHNIC INST OF N Y	215	210	128	126	87	84	146	144
29 N J INST OF TECHNOLOGY	210	204	138	130	72	74	156	150
30 UNIVERSITY OF CINCINNATI	207	245	132	123	75	122	151	152
TOTAL, 1ST 30 INSTS.	11,140	11,081	9,508	9,324	1,632	1,757	9,943	
31 UNIVERSITY OF FLORIDA	206	235	196	225	10	10	201	229
32 UNIVERSITY OF UTAH	197	191	152	147	45	44	169	163
33 ARIZONA STATE UNIVERSITY	194	174	182	161	12	13	185	166
34 UNIVERSITY OF KENTUCKY	189	222	159	179	30	43	168	192
35 GEORGE WASHINGTON UNIV	187	184	68	74	119	110	111	114
36 UNIV OF MISSOURI ROLLA	186	201	185	189	1	12	185	189
37 KANS ST U - AG & APP SCI	185	153	147	125	38	28	169	141
38 U OF HOUSTON CENTRAL CAM	180	201	112	126	68	75	134	149
39 UNIVERSITY OF PITTSBURGH	180	172	156	153	24	19	168	160I
40 UNIVERSITY OF KANSAS	178I	176I	148I	147I	30I	29I	166I	164I
TOTAL, 1ST 40 INSTS.	13,022	12,990	11,013	10,850	2,009	2,140	11,601	
41 COLORADO STATE UNIVERSITY	176	178	165	170	11	8	165	176
42 AUBURN UNIVERSITY	173	182	171	178	2	4	172	180
43 NORTHWESTERN UNIVERSITY	167	191	159	156	8	35	162	173
44 LOUISIANA STATE UNIV	164	162	149	145	15	17	153	149
45 OKLAHOMA STATE UNIVERSITY	162	130	147	126	15	4	156	127
46 CLEMSON UNIVERSITY	162	162	161	161	1	1	162	162
47 UNIVERSITY OF DAYTON	160	172	122	128	38	44	133	142
48 UNIVERSITY OF ARIZONA	159	186	150	177	9	9	154	180
49 UNIVERSITY OF COLORADO	156	151	142	137	14	14	147	141
50 UNIV OF MASS AT AMHERST	155	154	149	147	6	7	151	149
TOTAL, 1ST 50 INSTS.	14,656	14,658	12,528	12,375	2,128	2,283	13,157	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-32. -- ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 UNIVERSITY OF CONNECTICUT	153	142	139	121	14	21	148	131
52 MICHIGAN TECH UNIVERSITY	149	158	146	153	3	5	147	155
53 UNIV OF SOUTHERN CAL	148	148	128	128	20	20	133	133
54 ILLINOIS INST OF TECH	147	155	92	75	55	80	111	101
55 MISSISSIPPI STATE UNIV	144	138	137	137	7	1	139	137
56 COLUMBIA UNIV MAIN DIV	144	140	111	112	33	28	122	122
57 UNIV OF NEBRASKA-LINCOLN	142	146	138	144	4	2	140	145
58 CALIFORNIA INST OF TECH	141	146	136	142	5	4	139	144
59 WASHINGTON STATE UNIV	139	158I	57	122I	82	36I	109I	93
60 UNIVERSITY OF VIRGINIA	138	120	131	120	7	0	131	120
TOTAL, 1ST 60 INSTS.	16,101	16,109	13,743	13,629	2,358	2,480	14,478	
61 TEXAS TECH UNIVERSITY	138	144	118	126	20	18	131	129
62 MICHIGAN STATE UNIVERSITY	134	134	121	121	13	13	129	128
63 DREXEL UNIVERSITY	133	124	90	90	43	34	107	99
64 WAYNE STATE UNIVERSITY	132	120	76	76	56	44	102	99
65 OREGON STATE UNIVERSITY	123	132	114	123	9	9	116	128
66 WEST VIRGINIA UNIVERSITY	123	118	98	103	25	15	111	110
67 UNIV OF MISSOURI COLUMBIA	121	111	115	106	6	5	118	108
68 UNIV OF PENNSYLVANIA	119	128	85	94	34	34	94	105
69 CASE WESTERN RESERVE UNIV	117	115	117	115	0	0	117	115
70 UNIVERSITY OF DELAWARE	117	110	114	104	3	6	115	106
TOTAL, 1ST 70 INSTS.	17,358	17,345	14,791	14,687	2,567	2,658	15,619	
71 UNIV OF CAL DAVIS	116	182	76	106	40	76	95	
72 THE UNIVERSITY OF ALABAMA	116	124	103	113	13	11	104	116
73 LEHIGH UNIVERSITY	113	117	101	106	12	11	106	109
74 WORCESTER POLY INSTITUTE	112	95	87	88	25	7	96	90
75 UNIV OF P R-MAYAGUEZ	112	99	81	83	31	16	91	92
76 RUTGERS THE ST UNIV OF NJ	109	112	106	110	3	2	107	110
77 UTAH STATE UNIVERSITY	107	107	98	103	9	4	103	103
78 SUNY AT BUFFALO	107I	105I	86I	85I	21I	20I	93I	91I
79 WASHINGTON UNIVERSITY	105	91	74	70	31	21	84	77
80 SAN DIEGO STATE UNIV	105I	103	47I	47	58I	56	57I	56
TOTAL, 1ST 80 INSTS.	18,460	18,480	15,650	15,598	2,810	2,882	16,558	
81 EMORY UNIVERSITY	103I	103I	90I	90I	13I	13I	90I	90I
82 STEVENS INSTITUTE OF TECH	102	102	74	74	28	28	83	83
83 PRINCETON UNIVERSITY	102	101	96	96	6	5	99	99
84 SOUTHERN ILL U-CARBONDALE	102	99	96	94	6	5	98	95
85 UNIV OF WIS-MILWAUKEE	101	100	80	74	21	26	84	83
86 UNIVERSITY OF TOLEDO	99	96	71	64	28	32	79	74
87 INDIANA UNIV-ALL CAMPUSES	99	97	46	44	53	53	59I	58I
88 UNIV OF ILL CHICAGO CIR	98	92	88	81	10	11	90	81
89 RICE UNIVERSITY	96	68	87	57	9	11	92	63
90 UNIV OF ARK FAYETTEVILLE	96	64	91	63	5	1	93	63
TOTAL, 1ST 90 INSTS.	19,458	19,402	16,469	16,335	2,989	3,067	17,428	
91 SYRACUSE UNIVERSITY	96	84	79	80	17	4	83	82
92 CLARKSON COLLEGE OF TECH	96	88	82	76	14	12	85	80
93 UNIV OF TEX AT ARLINGTON	95	100	65	59	30	41	74	72
94 UNIV OF OKLAHOMA NORMAN	94	85	94	81	0	4	94	82
95 BRIGHAM YOUNG UNIVERSITY	94	88	86	84	8	4	88	84
96 UNIV OF CENTRAL FLORIDA	91	52	81	40	10	12	91	44
97 MONTANA STATE UNIVERSITY	91I	90	79I	78	12I	12	86I	85I
98 UNIVERSITY OF IDAHO	89	100	84	97	5	3	87	98
99 US NAVAL POSTGRAD SCHOOL	89	91	89	91	0	0	89	91
100 UNIVERSITY OF SANTA CLARA	85	57	21	18	64	39	30	31
TOTAL, 1ST 100 INSTS.	20,378	20,237	17,229	17,039	3,149	3,198	18,236	
TOTAL, ALL OTHER INSTS.	5,024	4,772	4,023	3,828	1,001	944	4,406	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-33. -- PHYSICAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	19,623	19,522	17,251	16,963	2,372	2,559	18,170	
1 MASS INST OF TECHNOLOGY	501	520	474	494	27	26	487	508
2 UNIV OF TEXAS AT AUSTIN	449	449	407	405	42	44	432	429
3 UNIV OF CAL BERKELEY	448	428	225	183	223	245	329	
4 JOHNS HOPKINS UNIVERSITY	391	368	388	365	3	3	389I	367
5 UNIV OF MD COLLEGE PARK	372	356	337	313	35	43	361	340
6 UNIV OF ILL URBANA	311	311	287	287	24	24	155	155
7 UNIVERSITY OF MICHIGAN	304	269	274	241	30	28	288	256
8 HOWARD UNIVERSITY	252I	249I	142I	142I	110I	107I	192I	190I
9 PURDUE UNIVERSITY	239	239	213	219	26	20	223	225
10 UNIV OF WIS-MADISON	228	311	202	279	26	32	218	298
TOTAL, 1ST 10 INSTS.	3,495	3,500	2,949	2,928	546	572	3,078	
11 HARVARD UNIVERSITY	226	222	188	184	38	38	215	214
12 UNIVERSITY OF ROCHESTER	218	218	198	198	20	20	202	202
13 CALIFORNIA INST OF TECH	216	237	216	236	0	1	216	237
14 UNIV OF CAL LOS ANGELES	214	387	155	142	59	245	192	
15 CORNELL UNIVERSITY	213	226	203	218	10	8	207I	220I
16 PENNSYLVANIA STATE UNIV	212	208	192	193	20	15	199	197
17 INDIANA UNIV-ALL CAMPUSES	211	207	171	168	40	39	184	182
18 UNIVERSITY OF CHICAGO	211	201	204	193	7	8	204	197
19 NORTHEASTERN UNIVERSITY	209	64	97	60	112	4	139	62
20 SUNY AT STONY BROOK	204	199	198	189	6	10	200	192
TOTAL, 1ST 20 INSTS.	5,629	5,669	4,771	4,709	858	960	5,036	
21 MICHIGAN STATE UNIVERSITY	199	194	196	191	3	3	197	192
22 UNIVERSITY OF COLORADO	196	196	193	193	3	3	195	195
23 UNIVERSITY OF ARIZONA	190	236	184	226	6	10	186	231
24 RUTGERS THE ST UNIV OF NJ	186	188	175	176	11	12	178	180
25 NORTHWESTERN UNIVERSITY	180	129	174	124	6	5	177	130
26 GEORGIA INSTITUTE OF TECH	178	181	169	178	9	3	173E	180
27 UNIVERSITY OF MINNESOTA	176	176	166	164	10	12	170	16[illegible]
28 UNIVERSITY OF PITTSBURGH	176	170	163	155	13	15	[illegible]	161I
29 YALE UNIVERSITY	175	155	149	143	26	12	162	149
30 STANFORD UNIVERSITY	173	182	146	153	27	29	152	154
TOTAL, 1ST 30 INSTS.	7,458	7,476	6,486	6,412	972	1,064	6,797	
31 UNIV OF CAL SAN DIEGO	166	140	143	119	23	21	155	
32 UNIVERSITY OF UTAH	163	158	142	138	21	20	159	146
33 OHIO STATE UNIVERSITY	163	162	116	115	47	47	126	152I
34 UNIVERSITY OF WASHINGTON	155	166	126	130	29	36	145	151
35 CARNEGIE-MELLON UNIV	152I	152I	145I	145I	7I	7I	147I	147I
36 COLUMBIA UNIV MAIN DIV	141	140	130	128	11	12	134	132
37 PRINCETON UNIVERSITY	140	150	132	137	8	13	136	144
38 UNIV OF CAL SANTA BARBARA	137	112	87	70	50	42	118	
39 LOUISIANA STATE UNIV	134	134	130	129	4	5	130	131
40 UNIVERSITY OF KANSAS	130I	129I	111I	110I	19I	19I	123I	122I
TOTAL, 1ST 40 INSTS.	8,939	8,919	7,748	7,633	1,191	1,286	8,174	
41 UNIVERSITY OF VIRGINIA	126	63	120	63	6	0	121	63
42 U TENNESSEE KNOXVILLE	123	133	105	114	18	19	112	120
43 UNIVERSITY OF NOTRE DAME	120	108	114	104	6	4	117	106
44 UNIVERSITY OF KENTUCKY	119	124	111	103	8	21	115	109
45 WAYNE STATE UNIVERSITY	115	104	81	75	34	29	93	86
46 UNIV OF P R-RIO PIEDRAS	110	67	77	66	33	1	95	66
47 UNIV OF PENNSYLVANIA	109	101	93	84	16	17	98	90
48 UNIVERSITY OF DAYTON	107	122	95	108	12	14	96	113
49 UNIV OF MASS AT AMHERST	105	104	101	99	4	5	105	102
50 UNIV OF SOUTH CAROLINA	103	96	98	91	5	5	98	90
TOTAL, 1ST 50 INSTS.	10,076	9,941	8,743	8,540	1,333	1,401	9,225	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-33. -- PHYSICAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 N C STATE UNIV AT RALEIGH	100	97	88	92	12	5	94	94
52 TEXAS A & M UNIVERSITY	100	100	100	100	0	0	100	100
53 UNIVERSITY OF NEW MEXICO	100	77	77	54	23	23	81	64
54 UNIVERSITY OF IOWA	97	92	96	92	1	0	96	92
55 UNIVERSITY OF DELAWARE	97	98	97	95	0	3	97	96
56 UNIVERSITY OF FLORIDA	97	88	96	87	1	1	96	87
57 FLORIDA STATE UNIVERSITY	96	118	95	107	1	11	95	115
58 UNIV OF CAL IRVINE	95	96	77	83	18	13	89	
59 UNIV OF SOUTHERN CAL	95	95	85	85	10	10	88	88
60 UNIV OF HAWAII-MANOA	94	86	87	83	7	3	90	84
TOTAL, 1ST 60 INSTS.	11,047	10,888	9,641	9,418	1,406	1,470	10,154	
61 SUNY AT BUFFALO	90I	89I	83I	82I	7I	7I	87I	86I
62 EMORY UNIVERSITY	89I	88I	81I	81I	8I	7I	85I	85I
63 NEW MEXICO STATE UNIV	88	101	84	97	4	4	86	99
64 U OF HOUSTON CENTRAL CAM	87	70	77	58	10	12	81	63
65 RICE UNIVERSITY	87	88	82	84	5	4	85	86
66 NEW YORK UNIVERSITY	87	85	75	75	12	10	78	77
67 UNIV OF CAL DAVIS	85	101	66	61	19	40	75	
68 OREGON STATE UNIVERSITY	84	93	77	89	7	4	80	87
69 DUKE UNIVERSITY	83	83	72	72	11	11	77	77
70 RENSSELAER POLYTECH INST	82	83	77	74	5	9	79	78
TOTAL, 1ST 70 INSTS.	11,909	11,769	10,415	10,191	1,494	1,578	10,970	
71 UNIV OF ILL CHICAGO CIR	81	84	72	69	9	15	75	75
72 KANS ST U - AG & APP SCI	81	50	62	49	19	1	70	49
73 CUNY CITY COLLEGE	81	89I	79	87I	2	2I	80	87I
74 CASE WESTERN RESERVE UNIV	80	79	80	79	0	0	80	79
75 UNIV OF NC AT CHAPEL HILL	80	73	78	73	2	0	79	73
76 SAN DIEGO STATE UNIV	79I	79	58I	58	21I	21	58I	56
77 UNIVERSITY OF GEORGIA	79	76	72	76	7	0	76	76
78 BOSTON UNIVERSITY	78	82	76	80	2	2	76	81
79 AUBURN UNIVERSITY	78	82	66	68	12	14	72	75
80 WASHINGTON UNIVERSITY	77	63	74	58	3	5	76	60
TOTAL, 1ST 80 INSTS.	12,703	12,526	11,132	10,888	1,571	1,638	11,714	
81 VA POLYTECH INST & ST U	77	76	77	76	0	0	77	76
82 UNIV OF NEBRASKA-LINCOLN	74	71	72	68	2	3	73	70
83 FAIRLEIGH DICKINSON UNIV	73	73	39	39	34	34	51	51
84 KENT STATE UNIVERSITY	73	85	73	72	0	13	73	73
85 IOWA ST U OF SCI & TECH	72	70	69	64	3	6	69	76
86 SUNY AT ALBANY	72	81	68	70	4	11	68	75
87 UNIVERSITY OF OREGON MAIN	72	74	46	43	26	31	58	53
88 UNIVERSITY OF CINCINNATI	71	66	69	65	2	1	70	65
89 BROWN UNIVERSITY	70	74	68	71	2	3	69	73
90 CLEMSON UNIVERSITY	70	70	70	70	0	0	70	70
TOTAL, 1ST 90 INSTS.	13,427	13,266	11,783	11,526	1,644	1,740	12,393	
91 UNIV OF WIS-MILWAUKEE	67	72	53	54	14	18	60	60
92 ARIZONA STATE UNIVERSITY	66	66	63	63	3	3	63	64
93 MONTANA STATE UNIVERSITY	66I	65	51I	51	15I	14	60I	59I
94 SYRACUSE UNIVERSITY	65	52	65	49	0	3	65	51
95 VANDERBILT UNIVERSITY	64	61	62	57	2	4	63	58
96 OREGON GRADUATE CENTER	64I	64I	64I	64I	0I	0I	64I	64I
97 OHIO UNIVERSITY	63	62	55	56	8	6	59	59
98 UNIV OF CAL SANTA CRUZ	63	53	57	48	6	5	52	
99 UNIVERSITY OF CONNECTICUT	63	69	59	66	4	3	61	64
100 GEORGE WASHINGTON UNIV	62	62	37	34	25	28	48	46
TOTAL, 1ST 100 INSTS.	14,070	13,892	12,349	12,068	1,721	1,824	12,990	
TOTAL, ALL OTHER INSTS.	5,553	5,630	4,902	4,895	651	735	5,180	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-34. -- ENVIRONMENTAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	7,000	6,943	6,208	6,150	792	793	6,491	
1 UNIV OF CAL SAN DIEGO	282	220	248	189	34	31	270	
2 UNIV OF WIS-MADISON	231	239	202	202	29	37	221	222
3 COLUMBIA UNIV MAIN DIV	199	199	190	192	9	7	193	194
4 UNIVERSITY OF WASHINGTON	190	188	153	156	37	32	174	172
5 UNIV OF TEXAS AT AUSTIN	179	197	176	188	3	9	177	192
6 UNIV OF ILL URBANA	164	164	122	122	42	42	96	96
7 LOUISIANA STATE UNIV	134	161	122	143	12	18	131	151
8 OREGON STATE UNIVERSITY	133	142	127	134	6	8	129	135
9 UNIV OF CAL LOS ANGELES	123	81	102	44	21	37	113	
10 COLLEGE OF WILLIAM & MARY	122	125	122	125	0	0	122	125
TOTAL, 1ST 10 INSTS.	1,757	1,716	1,564	1,495	193	221	1,626	
11 MASS INST OF TECHNOLOGY	117	130	107	113	10	17	112	122
12 UNIVERSITY OF ARIZONA	113	121	103	111	10	10	107	115
13 UNIV OF HAWAII-MANOA	108	90	99	87	9	3	103	88
14 HOWARD UNIVERSITY	99I	97I	48I	48I	51I	49I	64I	63I
15 UNIV OF CAL BERKELEY	92	30	41	28	51	2	63	
16 UNIVERSITY OF MIAMI	91	94	88	94	3	0	89	94
17 PENNSYLVANIA STATE UNIV	87	91	84	80	3	11	85	85
18 WOODS HOLE OCNGRPHIC INST	82	87	77	82	5	5	82	87
19 UNIV OF ALASKA FAIRBANKS	78I	77	76I	75	2I	2	76I	76
20 TEXAS A & M UNIVERSITY	78	72	78	72	0	0	78	72
TOTAL, 1ST 20 INSTS.	2,702	2,605	2,365	2,285	337	320	2,487	
21 UNIVERSITY OF DELAWARE	77	74	75	73	2	1	76	73
22 UNIVERSITY OF COLORADO	76	76	76	76	0	0	76	76
23 UNIVERSITY OF MINNESOTA	70	63	65	62	5	1	50	62
24 COLORADO STATE UNIVERSITY	69	66	67	65	2	1	64	69
25 UNIVERSITY OF MICHIGAN	67	79	60	69	7	10	63	73
26 SUNY AT ALBANY	66	69	57	62	9	7	58	65
27 FLORIDA STATE UNIVERSITY	66	68	66	64	0	4	66	65
28 INDIANA UNIV-ALL CAMPUSES	65	61I	54	49I	11	12I	54	54I
29 UNIVERSITY OF UTAH	63	62	55	54	8	8	58	51
30 CALIFORNIA INST OF TECH	60	69	56	68	4	1	58	69
TOTAL, 1ST 30 INSTS.	3,381	3,292	2,996	2,937	385	365	3,112	
31 UNIVERSITY OF GEORGIA	60	60	58	57	2	3	59	59
32 UNIVERSITY OF WYOMING	57	56	55	69	2	17	56	77
33 UNIVERSITY OF KANSAS	57I	55I	50I	49I	7I	6I	55I	53I
34 RUTGERS THE ST UNIV OF NJ	57	54	52	52	5	2	53	53
35 UNIVERSITY OF KENTUCKY	57	73	55	69	2	4	55	70
36 OHIO STATE UNIVERSITY	55	55	42	42	13	13	44	49I
37 HARVARD UNIVERSITY	55	42	54	42	1	0	54	42
38 SUNY AT STONY BROOK	51	49	50	48	1	1	50	48
39 STANFORD UNIVERSITY	51	57	35	41	16	16	34	37
40 UNIVERSITY OF NEW MEXICO	47	41	31	26	16	15	39	32
TOTAL, 1ST 40 INSTS.	3,928	3,864	3,478	3,422	450	442	3,613	
41 UNIVERSITY OF VIRGINIA	45	28	41	28	4	0	45I	28
42 UNIV OF WIS-MILWAUKEE	45	47	39	40	6	7	40	45
43 PRINCETON UNIVERSITY	44	45	40	42	4	3	44	44
44 ARIZONA STATE UNIVERSITY	44	43	35	33	9	10	37	37
45 UNIVERSITY OF CHICAGO	42	45	41	43	1	2	41	44
46 UTAH STATE UNIVERSITY	42	39	39	38	3	1	42	38
47 UNIV OF SOUTH CAROLINA	41	34	40	32	1	2	40	37
48 UNIV OF RHODE ISLAND	41	42	41	42	0	0	41	42I
49 N MEX INST MINING & TECH	40	40	40	40	0	0	40	40
50 VA POLYTECH INST & ST U	39	44	38	43	1	1	38	43
TOTAL, 1ST 50 INSTS.	4,351	4,271	3,872	3,803	479	468	4,021	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-34. -- ENVIRONMENTAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 COLORADO SCHOOL OF MINES	37I	36	29I	29	8I	7	33I	32
52 UNIV OF MAINE ORONO	37	32	36	30	1	2	36	32
53 GEORGIA INSTITUTE OF TECH	36	48	36	43	0	5	36E	45
54 FLORIDA INST OF TECH	36	31	29	28	7	3	35	33
55 MICHIGAN STATE UNIVERSITY	35	35	35	35	0	0	35	35
56 CORNELL UNIVERSITY	34	30	31	28	3	2	34I	30I
57 BOSTON COLLEGE	34	34	30	30	4	4	32	32
58 US NAVAL POSTGRAD SCHOOL	33	23	33	23	0	0	33	23
59 UNIV OF CAL SANTA CRUZ	33	30	24	18	9	12	25	
60 NORTH DAKOTA STATE UNIV	33	32	33	32	0	0	33	32
TOTAL, 1ST 60 INSTS.	4,699	4,602	4,188	4,099	511	503	4,354	
61 UNIV OF MASS AT AMHERST	33	32	32	30	1	2	32	31
62 UNIV OF NEW HAMPSHIRE	33	20	31	18	2	2	32	19
63 UNIV OF NEVADA - RENO	33	33	23	23	10	10	26	26
64 N C STATE UNIV AT RALEIGH	32	32	30	30	2	2	31	31
65 OLD DOMINION UNIVERSITY	32	37	26	26	6	11	29	26
66 DESERT RESEARCH INSTITUTE	32	32	30	31	2	1	31	32
67 UNIV OF SOUTH FLORIDA	31	41	31	36	0	5	31	37
68 UNIVERSITY OF CONNECTICUT	31	37	31	33	0	4	31	33
69 UNIV OF NEBRASKA-LINCOLN	30	26	29	26	1	0	29	26
70 NORTHERN ILLINOIS UNIV	29	36	26	32	3	4	27	33
TOTAL, 1ST 70 INSTS.	5,015	4,928	4,477	4,384	538	544	4,654	
71 PURDUE UNIVERSITY	29	27	26	26	3	1	27	26
72 UNIV OF ARK FAYETTEVILLE	28	10	24	8	4	2	25	10
73 UNIV OF TEXAS AT DALLAS	27	39	24	26	3	13	25	29
74 YALE UNIVERSITY	27	28	24	26	3	2	26	27
75 RICE UNIVERSITY	27	21	25	20	2	1	26	20
76 SUNY AT BINGHAMTON	26	19	22	19	4	0	23	19
77 ILLINOIS STATE UNIVERSITY	26	28	25	28	1	0	25	28
78 UNIV OF OKLAHOMA NORMAN	25	27	25	26	0	1	25	26
79 UNIVERSITY OF IDAHO	25	25	20	21	5	4	22	23
80 JOHNS HOPKINS UNIVERSITY	25	22	24	21	1	1	24	22
TOTAL, 1ST 80 INSTS.	5,280	5,174	4,716	4,605	564	569	4,904	
81 UNIV OF MD COLLEGE PARK	25	23	24	23	1	0	25	26
82 UNIV OF CAL RIVERSIDE	25	48	18	38	7	10	23	
83 TEXAS TECH UNIVERSITY	24	16	20	15	4	1	21	15
84 UNIV OF CAL SANTA BARBARA	24	37	19	23	5	14	22	
85 WRIGHT STATE UNIVERSITY	24	16	19	15	5	1	19	14
86 UNIV OF MISSOURI COLUMBIA	23	27	22	26	1	1	22	26
87 BRIGHAM YOUNG UNIVERSITY	23	21	23	21	0	0	23	21
88 DUKE UNIVERSITY	23	23	22	22	1	1	22	22
89 BROWN UNIVERSITY	23	25	21	24	2	1	22	25
90 UNIVERSITY OF AKRON	23	27	17	18	6	9	19	21
TOTAL, 1ST 90 INSTS.	5,517	5,437	4,921	4,830	596	607	5,124	
91 UNIV OF P R-MAYAGUEZ	23	24	23	21	0	3	23	21
92 NEW MEXICO STATE UNIV	22	21	20	20	2	1	20	20
93 LONG ISLAND UNIVERSITY	22I	22	16I	16	6I	6	19I	20
94 UNIV OF NC AT CHAPEL HILL	21	21	20	21	1	0	20	21
95 UNIVERSITY OF TOLEDO	21	19	15	15	6	4	17	17
96 UNIVERSITY OF N DAKOTA	21I	20I	21I	20I	0I	0I	21I	20I
97 U OF HOUSTON CENTRAL CAM	21	23	19	20	2	3	19	20
98 GEORGE WASHINGTON UNIV	21	19	8	8	13	11	12	12
99 NORTHEASTERN UNIVERSITY	21	8	11	8	10	0	15	8
100 UNIV OF ILL CHICAGO CIR	20	23	20	20	0	3	20	21
TOTAL, 1ST 100 INSTS.	5,730	5,637	5,094	4,999	636	638	5,313	
TOTAL, ALL OTHER INSTS.	1,270	1,306	1,114	1,151	156	155	1,177	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-35. -- MATHEMATICAL/COMPUTER SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	17,457	16,574	13,921	13,411	3,536	3,163	15,220	
1 PURDUE UNIVERSITY	272	234	178	174	94	60	216	197
2 NORTHEASTERN UNIVERSITY	265	92	59	52	206	40	136	64
3 PENNSYLVANIA STATE UNIV	250	234	179	185	71	49	209	204
4 RUTGERS THE ST UNIV OF NJ	241	239	232	230	9	9	235	233
5 UNIV OF TEXAS AT AUSTIN	233	193	208	179	25	14	219	184
6 UNIV OF WIS-MADISON	217	220	190	193	27	27	205	206
7 OHIO STATE UNIVERSITY	213	283	136	188	77	95	159	257I
8 JOHNS HOPKINS UNIVERSITY	203	200	200	197	3	3	201	200
9 UNIV OF ILL URBANA	196	196	183	183	13	13	92	92
10 BOSTON UNIVERSITY	195	166	44	41	151	125	95	82
TOTAL, 1ST 10 INSTS.	2,285	2,057	1,609	1,622	676	435	1,769	
11 UNIV OF SOUTH CAROLINA	190	178	156	145	34	33	167	152
12 UNIVERSITY OF KENTUCKY	190	208	157	152	33	56	167	170
13 LOUISIANA STATE UNIV	177	154	148	124	29	30	157	136
14 N C STATE UNIV AT RALEIGH	171	165	140	130	31	35	148	138
15 UNIVERSITY OF MINNESOTA	170	162	147	148	23	14	161	156
16 UNIVERSITY OF PITTSBURGH	169	148	118	123	51	25	143	135I
17 NEW MEXICO STATE UNIV	169	169	154	157	15	12	162	164
18 UNIV OF MD COLLEGE PARK	167	169	139	140	28	29	156	155
19 INDIANA UNIV-ALL CAMPUSES	164	154I	128	119I	36	35I	140	133I
20 PACE UNIVERSITY	160	91	35	27	125	64	114	56
TOTAL, 1ST 20 INSTS.	4,012	3,655	2,931	2,887	1,081	768	3,287	
21 MASS INST OF TECHNOLOGY	152	177	142	169	10	8	147	174
22 IOWA ST U OF SCI & TECH	151	154	140	141	11	13	146	151
23 MICHIGAN STATE UNIVERSITY	147	147	141	141	6	6	145	145
24 NEW YORK UNIVERSITY	136	157	116	118	20	39	125	131
25 BRIGHAM YOUNG UNIVERSITY	135	129	128	126	7	3	131	126
26 TEXAS A & M UNIVERSITY	135	127	135	12,	0	0	135	127
27 U TENNESSEE KNOXVILLE	130	134	118	120	12	14	124	125
28 GEORGE WASHINGTON UNIV	128	130	56	68	72	62	87	93
29 TEMPLE UNIVERSITY	123	137	95	97	28	40	119I	129I
30 STANFORD UNIVERSITY	123	117	89	92	34	25	86	85
TOTAL, 1ST 30 INSTS.	5,372	5,064	4,091	4,086	1,.81	978	4,532	
31 WAYNE STATE UNIVERSITY	122	104	62	53	60	51	82	70
32 FLORIDA STATE UNIVERSITY	121	116	114	102	7	14	116	110
33 UNIVERSITY OF MICHIGAN	120	124	112	116	8	8	115	119
34 VA POLYTECH INST & ST U	119	114	118	113	1	1	118	113
35 GEORGIA INSTITUTE OF TECH	117	120	100	108	17	12	108E	115
36 UNIVERSITY OF NEW MEXICO	112	85	81	64	31	21	99	72
37 UNIVERSITY OF KANSAS	110I	109I	93I	93I	17I	16I	100I	99I
38 WASHINGTON STATE UNIV	110	99I	80	76I	30	23I	80I	41
39 AUBURN UNIVERSITY	110	104	93	89	17	15	98	94
40 ARIZONA STATE UNIVERSITY	110	110	108	109	2	1	109	109
TOTAL, 1ST 40 INSTS.	6,523	6,149	5,052	5,009	1,471	1,140	5,561	
41 NORTHWESTERN UNIVERSITY	109	116	103	112	6	4	106	114
42 UNIV OF ILL CHICAGO CIR	105	110	89	96	16	14	95	102
43 UNIV OF CAL BERKELEY	105	194	81	82	24	112	91	
44 UNIVERSITY OF ARIZONA	105	102	103	97	2	5	103	99
45 NEW YORK INST TECHNOLOGY	103	96	44	38	59	58	64	57
46 OREGON STATE UNIVERSITY	101	96	77	74	24	22	86	87
47 UNIV OF PENNSYLVANIA	99	93	85	82	14	11	86	83
48 GEORGIA STATE UNIVERSITY	98	94	87	85	11	9	93	90
49 UNIVERSITY OF UTAH	97	95	84	82	13	13	87	85
50 SYRACUSE UNIVERSITY	97	60	92	59	5	1	92	60
TOTAL, 1ST 50 INSTS.	7,542	7,205	5,897	5,816	1,645	1,389	6,466	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-35. -- MATHEMATICAL/COMPUTER SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED *NSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 UNIVERSITY OF CHICAGO	96	60	62	59	34	1	62	59
52 CARNEGIE-MELLON UNIV	94I	94I	86I	86I	8I	8I	89I	89I
53 ILLINOIS STATE UNIVERSITY	94	97	79	79	15	18	86	67
54 UNIVERSITY OF GEORGIA	91	83	81	70	10	13	85	75
55 UNIVERSITY OF WASHINGTON	91	81	79	77	12	4	84	78
56 SUNY AT STONY BROOK	91	95	80	84	11	11	83	86
57 COLORADO STATE UNIVERSITY	90	80	85	80	5	0	85	83
58 UNIV OF P R-RIO PIEDRAS	89	67	75	67	14	0	82	67
59 UNIVERSITY OF FLORIDA	87	77	81	69	6	8	84	72
60 UNIVERSITY OF CINCINNATI	87	66	68	56	19	10	73	59
TOTAL, 1ST 60 INSTS.	8,452	8,005	6,673	6,543	1,779	1,462	7,282	
61 SUNY AT BUFFALO	86I	86I	86I	86I	0I	0I	86I	86I
62 UNIVERSITY OF CONNECTICUT	86	89	72	74	14	15	78	86
63 UNIVERSITY OF COLORADO	86	75	85	74	1	1	86	75
64 UNIVERSITY OF LOUISVILLE	85	86	50	53	35	33	60	66
65 CLEMSON UNIVERSITY	83	83	76	76	7	7	79	79
66 UNIVERSITY OF DAYTON	82	89	63	69	19	20	68	75
67 THE UNIVERSITY OF ALABAMA	82	73	72	67	10	6	76	69
68 WRIGHT STATE UNIVERSITY	82	78	47	49	35	29	56	57
69 AMERICAN UNIVERSITY	82	74	34	29	48	45	50	45
70 UNIV OF CAL LOS ANGELES	81	118	75	75	6	43	77	
TOTAL, 1ST 70 INSTS.	9,287	8,856	7,333	7,195	1,954	1,661	8,001	
71 KANS ST U - AG & APP SCI	81	74	66	54	15	20	73	63
72 UNIVERSITY OF VIRGINIA	81	41	78	41	3	0	80	41
73 FAIRLEIGH DICKINSON UNIV	81	81	29	29	52	52	48	48
74 DE PAUL UNIVERSITY	80	73	30	29	50	44	49	44I
75 UNIV OF WIS-MILWAUKEE	80	73	36	38	44	35	52	52
76 UNIVERSITY OF IOWA	80	79	74	74	6	5	76	76
77 UNIV OF TEX AT ARLINGTON	80	64	59	46	21	18	64	52
78 U OF HOUSTON CENTRAL CAM	79	76	66	61	13	15	69	65
79 CUNY CITY COLLEGE	79	69I	66	60I	13	9I	72	64I
80 HOFSTRA UNIVERSITY	78	72	51	43	27	29	61	54
TOTAL, 1ST 80 INSTS.	10,086	9,558	7,888	7,670	2,198	1,888	8,649	
81 SAN DIEGO STATE UNIV	78I	76	45I	44	33I	32	56I	55
82 SOUTHERN ILL U-CARBONDALE	77	82	75	80	2	2	76	81
83 KENT STATE UNIVERSITY	76	63	48	43	28	20	59	52
84 UNIV OF MASS AT AMHERST	75	77	71	75	4	2	72	75
85 UNIV OF CENTRAL FLORIDA	74	53	54	38	20	15	74	42
86 YALE UNIVERSITY	73	60	66	54	7	6	70	57
87 UNIV OF CAL SAN DIEGO	73	31	60	31	13	0	65	
88 UNIVERSITY OF WYOMING	72	55	65	54	7	1	68	54
89 MIAMI UNIVERSITY (OHIO)	71	78	69	50	2	28	70	64
90 NORTHERN ILLINOIS UNIV	71	82	65	70	6	12	69	66
TOTAL, 1ST 90 INSTS.	10,826	10,215	8,506	8,209	2,320	2,006	9,330	
91 UNIV OF SOUTHWESTERN LA	71	72	69	67	2	5	71	70
92 UNIV OF HAWAII-MANOA	70	48	53	44	17	4	60	45
93 CORNELL UNIVERSITY	69	85	66	74	3	11	67I	83I
94 N J INST OF TECHNOLOGY	69	64	40	36	29	28	48	44
95 OKLAHOMA STATE UNIVERSITY	68	61	55	52	13	9	61	57
96 WICHITA STATE UNIVERSITY	68	65	49	46	19	19	55	62
97 MICHIGAN TECH UNIVERSITY	68	61	64	56	4	5	66	58
98 LONG ISLAND UNIVERSITY	68I	68	44I	44	24I	24	53I	54
99 HARVARD UNIVERSITY	67	64	55	58	12	6	60	60
100 PORTLAND STATE UNIVERSITY	66	51	39	34	27	17	41	39
TOTAL, 1ST 100 INSTS.	11,510	10,854	9,040	8,720	2,470	2,134	9,914	
TOTAL, ALL OTHER INSTS.	5,947	5,720	4,881	4,691	1,066	1,029	5,306	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-36. -- LIFE SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	123,270	116,654	98,096	94,556	25,174	22,098	107,192	
1 HARVARD UNIVERSITY	5,356E	5,197	3,444E	3,327	1,912E	1,870	4,808E	4,570
2 OHIO STATE UNIVERSITY	2,753	2,139	1,042	1,138	1,711	1,001	1,225	1,785I
3 LOUISIANA STATE UNIV	2,267	2,256	1,831	1,793	436	463	1,927	1,887
4 UNIVERSITY OF MINNESOTA	2,145	2,263	1,794	1,849	351	414	1,785	1,866
5 UNIV OF CAL SAN FRANCISCO	2,113	1,260	1,332	851	781	409	1,741	
6 UNIV OF WIS-MADISON	2,079	2,046	1,726	1,670	353	376	1,943	1,898
7 UNIVERSITY OF FLORIDA	1,791	1,688	1,652	1,545	139	143	1,691	1,592
8 UNIV OF CAL LOS ANGELES	1,780	1,142	1,234	779	546	363	1,507	
9 YALE UNIVERSITY	1,677	1,543	1,405	1,320	272	223	1,542	1,432
10 JOHNS HOPKINS UNIVERSITY	1,666	1,556	1,607	1,496	59	60	1,637	1,526
TOTAL, 1ST 10 INSTS.	23,627	21,090	17,067	15,768	6,560	5,322	19,807	
11 UNIVERSITY OF MICHIGAN	1,599	1,765	1,233	1,323	366	442	1,382	1,506
12 UNIV OF CAL DAVIS	1,569	1,044	1,205	842	364	202	1,407	
13 UNIVERSITY OF WASHINGTON	1,453	1,492	1,064	1,112	389	380	1,256	1,308
14 UNIVERSITY OF IOWA	1,402	1,422	1,140	1,151	262	271	1,307	1,329
15 NEW YORK UNIVERSITY	1,393	1,406	948	952	445	454	1,097	1,107
16 CORNELL UNIVERSITY	1,361	1,439	1,304	1,348	57	91	1,320I	1,384I
17 CUNY MT SINAI SCH OF MED	1,357I	1,349I	1,091I	1,091I	266I	258I	1,161I	1,155I
18 COLUMBIA UNIV MAIN DIV	1,326	1,287	1,035	1,001	291	286	1,132	1,096
19 WASHINGTON UNIVERSITY	1,324	1,271	1,238	1,185	86	86	1,272	1,221
20 UNIVERSITY OF UTAH	1,294	1,256	1,186	1,151	108	105	1,217	1,179
TOTAL, 1ST 20 INSTS.	37,705	34,821	28,511	26,924	9,194	7,897	32,362	
21 UNIVERSITY OF KENTUCKY	1,274	1,277	1,138	1,151	136	126	1,186	1,189
22 DUKE UNIVERSITY	1,271	1,271	1,231	1,231	40	40	1,247	1,247
23 UNIV OF PENNSYLVANIA	1,265	1,209	1,017	950	248	259	1,118	1,056
24 UNIVERSITY OF PITTSBURGH	1,264	1,234	1,079	1,043	185	191	1,171	1,113I
25 CASE WESTERN RESERVE UNIV	1,240	1,197	1,016	983	224	214	1,098	1,060
26 UNIV OF SOUTHERN CAL	1,128	1,128	877	877	251	251	942	942
27 TEXAS A & M UNIVERSITY	1,078	1,069	1,078	1,069	0	0	1,078	1,069
28 U TEX HLTH SCI CTR HOUSTN	1,039	948I	829	738I	210	210I	917	828I
29 HOWARD UNIVERSITY	1,038I	1,027I	645I	645I	393I	382I	696I	688I
30 INDIANA UNIV-ALL CAMPUSES	1,004	992	721	718	283	274	834	817
TOTAL, 1ST 30 INSTS.	49,306	46,173	38,142	36,329	11,164	9,844	42,650	
31 U TEX HLTH SCI CTR DALLAS	995	976	734	720	261	256	817	807
32 UNIV ALABAMA BIRMINGHAM	985	1,049	897	953	88	96	922	984
33 U TEX HLTH SCI CTR S ANTO	984	849	842	728	142	121	886	763
34 UNIV OF ILL MED CTR CHGO	963	907	689	637	274	270	805	756
35 WAYNE STATE UNIVERSITY	950	1,040	741	722	209	318	827	845
36 UNIV OF MD BALT PROF SCH	943	933	576	570	367	363	686	679
37 UNIV OF MISSOURI COLUMBIA	927	931	838	845	89	86	868	873
38 COL OF MED & DENT OF N J	927	927	711	711	216	216	796	796
39 N C STATE UNIV AT RALEIGH	895	881	878	872	17	9	882	875
40 BAYLOR COL OF MEDICINE	892	834	769	733	123	101	794E	784
TOTAL, 1ST 40 INSTS.	58,767	55,500	45,817	43,820	12,950	11,680	50,936	
41 MICHIGAN STATE UNIVERSITY	888	889	814	808	74	81	848	834
42 MED UNIV OF SO CAROLINA	881	881	720	720	161	161	679	679
43 UNIV OF CAL SAN DIEGO	879	487	680	439	199	48	794	
44 YESHIVA UNIVERSITY	878	878	690	690	188	188	773	773
45 UNIVERSITY OF CONNECTICUT	860	831	704	678	156	153	777	748
46 NEW YORK MEDICAL COLLEGE	854	873	619	617	235	256	673	746
47 UNIV OF NC AT CHAPEL HILL	847	849	829	830	18	19	838	838
48 UNIV OF ILL URBANA	840	840	728	728	112	112	443	443
49 UNIV OF CAL BERKELEY	835	549	571	409	264	140	689	
50 UNIVERSITY OF CINCINNATI	832	717	719	619	113	98	753	625
TOTAL, 1ST 50 INSTS.	67,361	63,294	52,891	50,358	14,470	12,936	58,204	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-36. -- LIFE SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 UNIVERSITY OF CHICAGO	827	827	794	794	33	33	806	806
52 SUNY DOWNSTATE MED CTR	808I	799I	668	663I	140I	136I	724I	716I
53 U OF ARKANSAS MED SCI CAM	805	749	73	662	74	87	755	689
54 UNIV OF TEX CANCER CENTER	799	769I	75	703I	42	66I	778	704I
55 UNIVERSITY OF COLORADO	783	714	675	645	108	69	720	692
56 UNIVERSITY OF MIAMI	783E	783	733E	733	50E	50	758	759
57 UNIVERSITY OF KANSAS	782I	774I	626I	622I	156I	152I	710I	703I
58 UNIV OREGON HLTH SCI CTR	769I	758	507I	503	262I	255	602I	594
59 PENNSYLVANIA STATE UNIV	762	767	710	720	52	47	747	745
60 TEMPLE UNIVERSITY	735	804	674	656	61	148	734I	803I
TOTAL, 1ST 60 INSTS.	75,214	71,038	59,766	57,059	15,448	13,979	65,540	
61 SUNY AT BUFFALO	730I	719I	445I	441I	285I	278I	532I	524I
62 GEORGETOWN UNIVERSITY	724	705	696	679	28	26	711	692
63 UNIV OF OKLA HLTH SCI CTR	706	846	546	694	160	152	550	765
64 UNIV TENN CTR HEALTH SCI	704	736	537	566	167	170	580	612
65 VANDERBILT UNIVERSITY	701	630	581	509	120	121	597	540
66 BOSTON UNIVERSITY	701	694	556	571	145	123	597	605
67 UNIV OF HAWAII-MANOA	701	666	524	486	177	180	584	548
68 KANS ST U - AG & APP SCI	698	654	612	577	86	77	657	616
69 NE OHIO UNIVS MED SCHOOL	697	62	65	59	632	3	72	61
70 PURDUE UNIVERSITY	691	653	613	588	78	65	638	604
TOTAL, 1ST 70 INSTS.	82,267	77,403	64,941	62,229	17,326	15,174	71,060	
71 VIRGINIA COMMONHLTH UNIV	689	816	626	755	63	61	654	779
72 UNIVERSITY OF ROCHESTER	684	684	660	660	24	24	667	667
73 UNIVERSITY OF ARIZONA	682	742	586	630	96	112	628	679
74 UNIVERSITY OF GEORGIA	666	637	650	622	16	15	656	628
75 UNIV OF CAL IRVINE	659	357	500	304	159	53	673	
76 IOWA ST U OF SCI & TECH	623	810	563	752	60	58	603	790
77 UNIVERSITY OF NEW MEXICO	617	612	458	463	159	149	526	539
78 NORTHWESTERN UNIVERSITY	616	650	472	478	144	172	543	563
79 OREGON STATE UNIVERSITY	614	599	558	561	56	38	595	572
80 MEDICAL COL OF GEORGIA	602	614	455	473	147	141	528	543
TOTAL, 1ST 80 INSTS.	88,719	83,924	70,469	67,927	18,250	15,997	77,136	
81 TUFTS UNIVERSITY	581	486	194	183	387	303	312	243
82 UNIVERSITY OF VIRGINIA	579	494	548	494	31	0	552	494
83 PHILA COL OSTEOPATHIC MED	566	478	103	103	463	375	164	1
84 SUNY AT STONY BROOK	565	485	500	433	65	52	522	450
85 UNIVERSITY OF MISSISSIPPI	558	556	444	429	114	127	451I	429I
86 EMORY UNIVERSITY	532I	530I	447I	447I	85I	83I	463I	461I
87 GEORGE WASHINGTON UNIV	513	544	316	329	197	215	402	421
88 COLORADO STATE UNIVERSITY	510	497	487	480	23	17	496	495
89 UNIV OF NEBRASKA-LINCOLN	500	488	357	362	143	126	457	452
90 UNIV OF CAL RIVERSIDE	495	227	432	201	63	26	485	
TOTAL, 1ST 90 INSTS.	94,118	88,709	74,297	71,388	19,821	17,321	81,442	
91 UNIV OF P R-MED SCI CMPUS	476	465	393	382	83	83	444	424
92 STANFORD UNIVERSITY	471	458	422	395	49	63	396	417
93 LOYOLA UNIV - CHICAGO	470	400	274	204	196	196	339	269
94 CLEMSON UNIVERSITY	464	464	461	461	3	3	462	462
95 UNIVERSITY OF LOUISVILLE	461	456	356	353	105	103	387	391
96 AUBURN UNIVERSITY	450	424	427	407	23	17	439	413
97 UNIV OF SOUTH CAROLINA	440	424	382	374	58	50	406	396
98 ST LOUIS UNIVERSITY	438	439	357	366	81	73	383	390
99 U TEX MED BRNCH GALVESTON	425	377I	425	377I	0	0I	425	377I
100 RUTGERS THE ST UNIV OF NJ	425	408	421	403	4	5	422	405
TOTAL, 1ST 100 INSTS.	98,638	93,024	78,215	75,110	20,423	17,914	85,546	
TOTAL, ALL OTHER INSTS.	24,632	23,630	19,881	19,446	4,751	4,184	21,645	

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SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-37. — PSYCHOLOGISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	10,419	10,439	8,212	8,212	2,207	2,227	8,986	
1 UNIVERSITY OF MICHIGAN	205	213	158	164	47	49	183	187
2 UNIV OF WIS-MADISON	200	194	163	161	37	33	184	180
3 UNIV OF ILL URBANA	175	175	150	150	25	25	88	88
4 NEW YORK UNIVERSITY	161	164	72	74	89	90	105	97
5 UNIV OF TEXAS AT AUSTIN	146	145	112	118	34	27	127	133
6 UNIVERSITY OF CONNECTICUT	135	147	115	112	20	35	124	126
7 NEW MEXICO STATE UNIV	131	113	125	106	6	7	126	110
8 RUTGERS THE ST UNIV OF NJ	127	107	126	107	1	0	126	107
9 INDIANA UNIV-ALL CAMPUSES	124	123I	99	100I	25	23I	108	109I
10 UNIVERSITY OF MINNESOTA	123	145	112	128	11	17	119	134
TOTAL, 1ST 10 INSTS.	1,527	1,526	1,232	1,220	295	306	1,291	
11 SOUTHERN ILL U-CARBONDALE	119	121	110	100	9	21	115	110
12 CORNELL UNIVERSITY	119	116	108	105	11	11	111I	108I
13 TEMPLE UNIVERSITY	115	135	97	98	18	37	97I	98
14 MICHIGAN STATE UNIVERSITY	113	115	113	115	0	0	113	115
15 UNIV OF CAL LOS ANGELES	110	118	76	71	34	47	93	
16 PURDUE UNIVERSITY	104	105	86	88	18	17	93	95
17 UNIVERSITY OF COLORADO	102	79	81	66	21	13	89	70
18 UNIVERSITY OF KENTUCKY	102	70	65	59	37	11	76	62
19 WAYNE STATE UNIVERSITY	95	78	36	36	59	42	56	50
20 NORTHEASTERN UNIVERSITY	89	26	33	23	56	3	54	25
TOTAL, 1ST 20 INSTS.	2,595	2,489	2,037	1,981	558	508	2,189	
21 UNIV OF P R-RIO PIEDRAS	89	86	89	84	0	2	89	85
22 YESHIVA UNIVERSITY	88	88	49	49	39	39	69	69
23 UNIVERSITY OF ROCHESTER	86	86	82	82	4	4	83	83
24 UNIVERSITY OF ARIZONA	86	93	79	88	7	5	82	89
25 UNIV OF SOUTH CAROLINA	80	91	71	79	9	12	73	84
26 PENNSYLVANIA STATE UNIV	80	82	76	76	4	6	78	78
27 U TENNESSEE KNOXVILLE	78	74	57	60	21	14	63	64
28 SUNY AT ALBANY	78	80	69	70	9	10	69	75
29 VANDERBILT UNIVERSITY	76	40	70	39	6	1	72	39
30 UNIV OF CAL BERKELEY	76	59	52	38	24	21	66	
TOTAL, 1ST 30 INSTS.	3,412	3,268	2,731	2,646	681	622	2,934	
31 OHIO STATE UNIVERSITY	76	76	48	48	28	28	50	74I
32 UNIVERSITY OF KANSAS	75I	74I	61I	60I	14I	14I	66I	65I
33 SAN DIEGO STATE UNIV	73I	72	52I	51	21I	21	52I	51
34 UNIVERSITY OF GEORGIA	71	90	67	85	4	5	69	87
35 FAIRLEIGH DICKINSON UNIV	70	70	42	42	28	28	50	50
36 ADELPHI UNIVERSITY	68	69	25	25	43	44	37	39
37 UNIVERSITY OF PITTSBURGH	68	68	65	65	3	3	66	65I
38 YALE UNIVERSITY	67	59	44	39	23	20	56	49
39 ST JOHN'S UNIVERSITY (NY)	66	73	37	34	29	39	47	47
40 UNIVERSITY OF WASHINGTON	64	64	50	49	14	15	54	56
TOTAL, 1ST 40 INSTS.	4,110	3,983	3,222	3,144	888	839	3,485	
41 CAL SCH PROF PSYCH-LA	63	63	8	8	55	55	29	29
42 LOYOLA UNIV - CHICAGO	61	59	36	35	25	24	44	43
43 SUNY AT BUFFALO	61I	61I	58I	58I	3I	3I	58I	58I
44 HARVARD UNIVERSITY	61	63	44	54	17	9	52	58
45 U OF HOUSTON CENTRAL CAM	60	65	46	42	14	23	50	49
46 ILLINOIS STATE UNIVERSITY	59	60	50	52	9	8	53	55
47 UNIV OF MASS AT AMHERST	59	65	51	56	8	9	55	60
48 HOFSTRA UNIVERSITY	58	54	30	31	28	23	41	40
49 GEORGE WASHINGTON UNIV	58	73	30	25	28	48	40	45
50 UNIV OF WIS-MILWAUKEE	58	54	47	44	11	10	52	45
TOTAL, 1ST 50 INSTS.	4,708	4,600	3,622	3,549	1,086	1,051	3,961	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-37. — PSYCHOLOGISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 PACE UNIVERSITY	56	76	16	20	40	56	43	41
52 SUNY AT STONY BROOK	55	56	50	52	5	4	52	54
53 UNIVERSITY OF FLORIDA	53	49	47	44	6	5	49	46
54 COLUMBIA U TEACHERS COL	52	58	28	43	24	15	34	47
55 UNIVERSITY OF CINCINNATI	52	47	41	39	11	8	43	41
56 MIAMI UNIVERSITY (OHIO)	51	47	50	46	1	1	50	46
57 AUBURN UNIVERSITY	50	44	28	30	22	14	41	35
58 UNIVERSITY OF UTAH	50	49	41	40	9	9	42	41
59 UNIV OF NEBRASKA-LINCOLN	50	41	48	39	2	2	49	40
60 UNIV OF SOUTHERN CAL	49	49	38	38	11	11	40	40
TOTAL, 1ST 60 INSTS.	5,226	5,116	4,009	3,940	1,217	1,176	4,409	
61 BRIGHAM YOUNG UNIVERSITY	49	65	39	52	10	13	41	56
62 WICHITA STATE UNIVERSITY	48	47	43	42	5	5	46	44
63 COLORADO STATE UNIVERSITY	47	43	45	42	2	1	42	43
64 TEXAS A & M UNIVERSITY	46	43	46	43	0	0	46	43
65 LONG ISLAND UNIVERSITY	46I	45	34I	34	12I	11	38I	37
66 WRIGHT STATE UNIVERSITY	46	41	34	32	12	9	31	30
67 UNIV OF MISSOURI COLUMBIA	46	46	39	42	7	4	42	44
68 UNIV OF MD COLLEGE PARK	45	48	44	44	1	4	44	45
69 EMORY UNIVERSITY	45I	45I	35I	35I	10I	10I	37I	37I
70 ARIZONA STATE UNIVERSITY	45	46	41	44	4	2	42	45
TOTAL, 1ST 70 INSTS.	5,689	5,585	4,409	4,350	1,280	1,235	4,821	
71 UNIVERSITY OF CHICAGO	45	42	44	40	1	2	44	41
72 UNIVERSITY OF NEW MEXICO	44	48	35	35	9	13	38	41
73 FLORIDA STATE UNIVERSITY	44	57	43	47	1	10	43	54
74 UNIV OF NC AT CHAPEL HILL	43	36	42	36	1	0	42	36
75 BALL STATE UNIVERSITY	43	40	43	40	0	0	43	40
76 UNIVERSITY OF OREGON MAIN	42	33	24	20	18	13	32	28
77 CENTRAL MICHIGAN UNIV	42	44	36	35	6	9	38	38
78 GEORGE MASON UNIVERSITY	42I	41I	27I	26I	15I	15I	33I	32I
79 LOUISIANA STATE UNIV	42	45	37	33	5	12	38	38
80 SYRACUSE UNIVERSITY	42	86	34	64	8	22	36	75
TOTAL, 1ST 80 INSTS.	6,118	6,057	4,774	4,726	1,344	1,331	5,210	
81 UNIVERSITY OF LOUISVILLE	42	42	34	34	8	8	36	39
82 UNIV OF NORTHERN COLORADO	42	34	27	34	15	0	33	34
83 VIRGINIA COMMONWLTH UNIV	42	36	41	30	1	6	42	31
84 UNIV OF HAWAII-MANOA	41	38	35	30	6	8	37	35
85 COL OF MED & DENT OF N J	41	41	27	27	14	14	35	35
86 STANFORD UNIVERSITY	41	41	28	28	13	13	29	28
87 NEW SCH FOR SOC RESEARCH	40I	40I	15I	15I	25I	25I	40I	40I
88 UNIVERSITY OF DENVER	40	46	31	35	9	11	35	40
89 BOSTON UNIVERSITY	40	39	39	36	1	3	39	37
90 NORTHWESTERN UNIVERSITY	39	76	32	68	7	8	35	72
TOTAL, 1ST 90 INSTS.	6,526	6,490	5,083	5,063	1,443	1,427	5,574	
91 EAST CAROLINA UNIVERSITY	39	44	32	32	7	12	39	44
92 ROCKEFELLER UNIVERSITY	39	41	35	34	4	7	37	37
93 THE UNIVERSITY OF ALABAMA	38	35	34	34	4	1	35	34
94 UNIV OF ILL CHICAGO CIR	38	38	31	32	7	6	34	34
95 KENT STATE UNIVERSITY	38	35	34	35	4	0	36	35
96 UNIVERSITY OF IOWA	38	42	35	36	3	5	37	39
97 UNIV OF CAL SAN DIEGO	37	24	28	21	9	3	34	
98 OHIO UNIVERSITY	37	41	23	25	14	16	29	29
99 UNIVERSITY OF MIAMI	36	41	36	39	0	2	36	41
100 DUKE UNIVERSITY	36	36	23	23	13	13	28	28
TOTAL, 1ST 100 INSTS.	6,902	6,866	5,394	5,374	1,508	1,492	5,920	
TOTAL, ALL OTHER INSTS.	3,517	3,573	2,818	2,838	699	735	3,066	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-38. — SOCIAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	28,657	28,571	23,162	22,896	5,495	5,675	25,039	
1 OHIO STATE UNIVERSITY	637	685	254	265	383	420	303	593I
2 UNIVERSITY OF MINNESOTA	596	599	522	534	74	65	513	527
3 WEST VIRGINIA UNIVERSITY	488	498	450	451	38	47	467	467
4 RUTGERS THE ST UNIV OF NJ	457	458	452	449	5	9	453	451
5 UNIV OF ILL URBANA	454	454	389	389	65	65	229	229
6 TEXAS A & M UNIVERSITY	424	408	424	408	0	0	424	408
7 UNIV OF WIS-MADISON	410	438	324	344	86	94	367	392
8 UNIV OF TEXAS AT AUSTIN	358	362	299	330	59	32	328	344
9 COLUMBIA UNIV MAIN DIV	347	354	245	257	102	97	279	290
10 UNIVERSITY OF MICHIGAN	346	381	285	320	61	61	315	353
TOTAL, 1ST 10 INSTS.	4,517	4,637	3,644	3,747	873	890	3,679	
11 UNIV OF CAL LOS ANGELES	339	291	264	184	75	107	300	
12 UNIV OF CAL BERKELEY	332	345	229	209	103	136	279	
13 INDIANA UNIV-ALL CAMPUSES	316	340I	223	244I	93	96I	267	280I
14 MICHIGAN STATE UNIVERSITY	295	298	281	284	14	14	281	291
15 CORNELL UNIVERSITY	291	294	258	269	33	25	277I	280I
16 UNIV OF P R-RIO PIEDRAS	279	175	273	172	6	3	277	173
17 NEW YORK UNIVERSITY	275	288	156	179	119	109	187	215
18 UNIV OF PENNSYLVANIA	265	266	237	250	28	16	244	256
19 UNIVERSITY OF CONNECTICUT	265	258	217	209	48	49	231	225
20 PURDUE UNIVERSITY	259	238	205	199	54	39	224	214
TOTAL, 1ST 20 INSTS.	7,433	7,430	5,987	5,946	1,446	1,484	6,248	
21 UNIVERSITY OF WASHINGTON	258	232	194	181	64	51	227	208
22 UNIV OF SOUTH CAROLINA	256	239	224	210	32	29	237	215
23 UNIV OF HAWAII-MANOA	241	291	187	224	54	67	207	253
24 UNIVERSITY OF KENTUCKY	235	241	207	213	28	28	215	210
25 NORTHEASTERN UNIVERSITY	234	74	100	69	134	5	150	71
26 PENNSYLVANIA STATE UNIV	233	224	206	192	27	32	217	205
27 UNIV OF MD COLLEGE PARK	232	264	170	191	62	73	197	221
28 MASS INST OF TECHNOLOGY	224	251	185	223	39	28	204	238
29 UNIVERSITY OF KANSAS	222I	219I	183I	181I	39I	38I	204I	201I
30 YALE UNIVERSITY	221	185	172	157	49	28	197	171
TOTAL, 1ST 30 INSTS.	9,789	9,650	7,815	7,787	1,974	1,863	8,305	
31 N C STATE UNIV AT RALEIGH	221	206	174	169	47	37	191	178
32 TEMPLE UNIVERSITY	215	253	163	159	52	94	197I	223I
33 BOSTON UNIVERSITY	213	228	134	129	79	99	161	162
34 UNIVERSITY OF ARIZONA	208	216	187	198	21	18	195	207
35 UNIV OF ILL CHICAGO CIR	208	234	169	172	39	62	182	192
36 JOHNS HOPKINS UNIVERSITY	206	212	123	125	83	87	161	156
37 WAYNE STATE UNIVERSITY	204	233	85	86	119	147	125	135
38 AMERICAN UNIVERSITY	202	210	115	110	87	100	147	149
39 UNIVERSITY OF IOWA	200	192	165	155	35	37	177	171
40 FLORIDA STATE UNIVERSITY	193	198	177	174	16	24	183	182
TOTAL, 1ST 40 INSTS.	11,859	11,832	9,307	9,264	2,552	2,568	10,026	
41 SOUTHERN ILL U-CARBONDALE	193	184	177	168	16	16	184	174
42 UNIVERSITY OF COLORADO	184	202	173	191	11	11	178	196
43 UNIV OF CAL SANTA BARBARA	183	169	137	106	46	63	159	
44 NEW MEXICO STATE UNIV	181	189	163	161	18	28	171	168
45 HARVARD UNIVERSITY	179	184	131	152	48	32	150	168
46 NORTHWESTERN UNIVERSITY	179	169	156	139	23	30	167	153
47 PORTLAND STATE UNIVERSITY	176	164	110	106	66	58	138	125
48 LONG ISLAND UNIVERSITY	174I	171	73I	73	101I	98	105I	104
49 UNIVERSITY OF GEORGIA	174	150	168	147	6	3	170	148
50 UNIV OF CAL DAVIS	172	183	137	142	35	41	151	
TOTAL, 1ST 50 INSTS.	13,654	13,597	10,732	10,649	2,922	2,948	11,602	

SEE FOOTNOTES AT END OF TABLE.

TABLE B-38. -- SOCIAL SCIENTISTS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE 1/	
	1982	1981	1982	1981	1982	1981	1982	1981
51 SYRACUSE UNIVERSITY	172	117	143	107	29	10	157	112
52 GEORGE WASHINGTON UNIV	171	172	97	91	74	81	124	123
53 UNIVERSITY OF PITTSBURGH	166	176	136	147	30	29	151	158I
54 SUNY AT ALBANY	165	181	133	144	32	37	143	155
55 KANS ST U - AG & APP SCI	164	183	136	151	28	32	147	165
56 IOWA ST U OF SCI & TECH	162	154	139	128	23	26	153	114
57 UNIV OF NC AT CHAPEL HILL	160	161	149	154	11	7	154	157
58 U TENNESSEE KNOXVILLE	160	177	147	163	13	14	153	168
59 UNIVERSITY OF UTAH	158	154	124	121	34	33	138	134
60 UNIV OF WIS-MILWAUKEE	155	171	111	113	44	58	125	131
TOTAL, 1ST 60 INSTS.	15,287	15,243	12,047	11,968	3,240	3,275	13,049	
61 AUBURN UNIVERSITY	154	155	140	138	14	17	145	144
62 LOUISIANA STATE UNIV	154	141	142	131	12	10	144	134
63 ARIZONA STATE UNIVERSITY	145	133	141	129	4	4	143	132
64 FLORIDA INST OF TECH	145	137	13	7	132	130	60	48
65 DUKE UNIVERSITY	144	144	130	130	14	14	135	135
66 WASHINGTON STATE UNIV	140	200I	86	151I	54	49I	86I	78
67 WESTERN MICHIGAN UNIV	139	126	117	98	22	28	121	104
68 UNIVERSITY OF NEW MEXICO	138	127	108	92	30	35	114	106
69 CUNY HUNTER COLLEGE	137	118I	84	73I	53	45I	103	92I
70 MISSISSIPPI STATE UNIV	137	107	134	104	3	3	135	104
TOTAL, 1ST 70 INSTS.	16,720	16,631	13,142	13,021	3,578	3,610	14,239	
71 UNIV OF MASS AT AMHERST	137	137	124	125	13	12	128	130
72 SAN DIEGO STATE UNIV	135I	133	108I	107	27I	26	134I	132
73 SUNY AT BUFFALO	134I	132I	126I	125I	8I	7I	129I	127I
74 KENT STATE UNIVERSITY	134	113	122	110	12	3	126	111
75 UNIVERSITY OF CHICAGO	133	145	130	140	3	5	131	143
76 COLORADO STATE UNIVERSITY	131	131	129	130	2	1	124	127
77 UNIVERSITY OF FLORIDA	129	111	121	104	8	7	124	107
78 BRIGHAM YOUNG UNIVERSITY	129	130	103	100	26	30	109	109
79 UNIV OF SOUTHERN CAL	128	128	93	93	35	35	108	108
80 STANFORD UNIVERSITY	128	120	102	99	26	21	103	97
TOTAL, 1ST 80 INSTS.	18,038	17,911	14,300	14,154	3,738	3,757	15,459	
81 PRINCETON UNIVERSITY	128	122	112	104	16	18	120	115
82 FORDHAM UNIVERSITY	126	117	88	74	38	43	105	86
83 UNIVERSITY OF OREGON MAIN	125	100	87	77	38	23	105	88
84 SUNY AT STONY BROOK	124	117	109	104	15	13	114	107
85 UNIV OF SOUTH FLORIDA	123	167	121	121	2	46	122	136
86 UNIVERSITY OF VIRGINIA	122	88	95	88	27	0	101	88
87 UNIV OF MISSOURI COLUMBIA	120	142	117	134	3	8	117	137
88 OKLAHOMA STATE UNIVERSITY	118	102	111	97	7	5	112	99
89 GEORGETOWN UNIVERSITY	118	116	81	83	37	33	99	99
90 ILLINOIS STATE UNIVERSITY	118	120	99	103	19	17	105	97
TOTAL, 1ST 90 INSTS.	19,260	19,102	15,320	15,139	3,940	3,963	16,562	
91 UNIVERSITY OF DENVER	116	66	111	65	5	1	113	65
92 NORTHERN ILLINOIS UNIV	114	103	97	83	17	20	105	91
93 UNIVERSITY OF LOUISVILLE	111	111	72	72	39	39	83	88
94 EMORY UNIVERSITY	111I	110I	91I	91I	20I	19I	95I	95I
95 FAIRLEIGH DICKINSON UNIV	110	110	59	59	51	51	75	75
96 UNIV OF TEX AT ARLINGTON	108	104	95	93	13	11	100	94
97 VA POLYTECH INST & ST U	107	121	106	120	1	1	106	120
98 HOWARD UNIVERSITY	106I	104I	58I	58I	48I	46I	73I	72I
99 UNIV OF NEBRASKA-LINCOLN	103	101	101	100	2	1	102	101
100 UNIV OF CAL SAN DIEGO	103	84	90	79	13	5	96	
TOTAL, 1ST 100 INSTS.	20,349	20,116	16,200	15,959	4,149	4,157	17,513	
TOTAL, ALL OTHER INSTS.	8,308	8,455	6,962	6,937	1,346	1,518	7,526	

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-39. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY SEX: JANUARY 1980 - JANUARY 1982

INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1982	1981	1980	1982	1981	1980	1982	1981	1980
TOTAL, ALL INSTITUTIONS	50,433	46,626	44,197	216,630	212,918	210,673	267,063	259,544	254,870
1 HARVARD UNIVERSITY	751	694	596	3,205	3,167	3,078	3,956	3,861	3,674
2 UNIV OF WIS-MADISON	751	759	751	2,365	2,384	2,376	3,116	3,143	3,127
3 LOUISIANA STATE UNIV	596	590	608	1,963	1,908	1,951	2,559	2,498	2,559
4 UNIVERSITY OF MICHIGAN	587	620	799	1,871	2,001	1,875	2,458	2,621	2,674
5 UNIV OF CAL LOS ANGELES	555	215	181	1,539	1,229	1,208	2,094	1,444	1,389
6 UNIVERSITY OF MINNESOTA	518	506	513	2,485	2,575	2,517	3,003	3,081	3,030
7 UNIV OF CAL SAN FRANCISCO	511	225	227	821	674	711	1,332	899	938
8 UNIVERSITY OF PITTSBURGH	489E	484E	451I	1,244E	1,219E	1,185I	1,733E	1,703E	1,636
9 JOHNS HOPKINS UNIVERSITY	472I	440	423	2,855I	2,717	2,731	3,327	3,157	3,138
10 UNIVERSITY OF UTAH	457	444	199I	1,327	1,289	1,077	1,784	1,733	1,276E
TOTAL, 1ST 10 INSTS.	5,687	4,977	4,748	19,675	19,163	18,693	25,362	24,140	23,441
11 YALE UNIVERSITY	450I	412I	417I	1,460I	1,382I	1,427I	1,910	1,794	1,844
12 COLUMBIA UNIV MAIN DIV	412	408	363	1,354	1,336	1,310	1,766	1,744	1,673
13 CORNELL UNIVERSITY	407	385	366	1,878	1,946	1,965	2,285	2,331	2,331
14 UNIVERSITY OF KENTUCKY	401	389	376	1,491	1,537	1,554	1,892	1,926	1,930
15 UNIV OF TEX CANCER CENTER	392	416I	410I	447	406I	400I	839	822I	810I
16 UNIVERSITY OF WASHINGTON	390	404	394	1,551	1,562	1,596	1,941	1,966	1,990
17 UNIV OF ILL URBANA	381E	381	283	1,865E	1,865	1,769	2,246E	2,246	2,052
18 UNIVERSITY OF FLORIDA	373	371	357	1,832	1,711	1,706	2,205	2,082	2,063
19 OHIO STATE UNIVERSITY	343	370	588	1,541	1,680	1,954	1,884	2,050	2,542
20 UNIVERSITY OF CONNECTICUT	342	330	287	995	963	949	1,337	1,293	1,236
TOTAL, 1ST 20 INSTS.	9,578	8,843	8,589	34,089	33,551	33,323	43,667	42,394	41,912
21 WAYNE STATE UNIVERSITY	332	303	305	756	753	756	1,088	1,056	1,061
22 RUTGERS THE ST UNIV OF NJ	329	329	326	1,235	1,198	1,236	1,564	1,527	1,562
23 WASHINGTON UNIVERSITY	323	303	294	1,207	1,177	1,157	1,530	1,480	1,451
24 UNIV OF TEXAS AT AUSTIN	323	345	334	1,348	1,354	1,323	1,671	1,699	1,657
25 UNIV OF P R-RIO PIEDRAS	319	236	192I	530	503	249I	849	739	441I
26 U TEX HLTH SCI CTR HOUSTN	316	223I	221	570	629I	618	886	852I	839
27 INDIANA UNIV-ALL CAMPUSES	310I	298I	298I	1,132I	1,144I	1,144I	1,442	1,442I	1,442I
28 UNIVERSITY OF IOWA	308	311	279	1,286	1,277	1,274	1,594	1,588	1,553
29 DUKE UNIVERSITY	299E	299	236	1,264E	1,264	1,210	1,563E	1,563	1,446
30 NEW YORK UNIVERSITY	293I	309	337	1,099I	1,116	1,072	1,392	1,425	1,409
TOTAL, 1ST 30 INSTS.	12,730	11,799	11,411	44,516	43,966	43,362	57,246	55,765	54,773
31 CUNY MT SINAI SCH OF MED	288I	288I	276I	904I	904I	866I	1,192I	1,192I	1,142I
32 UNIV OF CAL DAVIS	285	126	126	1,277	1,087	1,033	1,562	1,213	1,159
33 UNIV OF CAL BERKELEY	281	176	175	1,223	1,057	1,062	1,504	1,233	1,237
34 UNIVERSITY OF NEW MEXICO	279	261	233	673	622	658	952	883	891
35 UNIV OF CAL SAN DIEGO	274	88	80	996	836	868	1,270	924	948
36 UNIV OF ILL MED CTR CHGO	272	254	305	450	411	642	722	665	947
37 BOSTON UNIVERSITY	263	276	271	623	614	646	886	890	917
38 HOWARD UNIVERSITY	263I	263I	252I	716I	716I	686I	979I	979I	938
39 MASS INST OF TECHNOLOGY	262	343	300	1,634	1,776	1,775	1,896	2,119	2,075
40 MICHIGAN STATE UNIVERSITY	258	259	251	1,443	1,436	1,418	1,701	1,695	1,669
TOTAL, 1ST 40 INSTS.	15,455	14,133	13,680	54,455	53,425	53,016	69,910	67,558	66,696
41 UNIV OF PENNSYLVANIA	255	224	211	1,291	1,267	1,027	1,546	1,491	1,238
42 U TEX HLTH SCI CTR S ANTO	254	220	182I	672	584	627I	926	804	809I
43 UNIV OF SOUTH CAROLINA	252	238	227	780	763	731	1,032	1,001	958
44 MED UNIV OF SO CAROLINA	246E	246	222	524E	524	505	770E	770	727
45 UNIVERSITY OF CHICAGO	242	243	236	1,078	1,072	1,085	1,320	1,315	1,321
46 CHEYNEY STATE COLLEGE	236	11I	11I	220	46I	46I	456	57I	57I
47 PURDUE UNIVERSITY	229	180	174	1,549	1,562	1,552	1,778	1,742	1,726
48 UNIV OF MISSOURI COLUMBIA	226	207	141	1,014	1,049	959	1,240	1,256	1,100
49 SUNY AT STONY BROOK	224	184	134	828	779	761	1,052	963	895
50 PENNSYLVANIA STATE UNIV	220	203	213	1,851	1,845	1,795	2,071	2,048	2,008
TOTAL, 1ST 50 INSTS.	17,839	16,089	15,431	64,262	62,916	62,104	82,101	79,005	77,535

SEE FOOTNOTES AT END OF TABLE.

TABLE B-39. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY SEX: JANUARY 1980 - JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1982	1981	1980	1982	1981	1980	1982	1981	1980
51 CASE WESTERN RESERVE UNIV	219	209	217	1,088	1,061	1,055	1,307	1,270	1,272
52 TEMPLE UNIVERSITY	217	203	193	903	896	897	1,120	1,099	1,090
53 CITY COLLEGES OF CHICAGO	215	228	224	444	433	432	659	661	656
54 UNIV OF HAWAII-MANOA	210	187	194	833	826	799	1,043	1,013	993
55 GEORGETOWN UNIVERSITY	207	202	201	626	615	593	833	817	794
56 UNIV OF P R-MED SCI CMPUS	207	203	137I	302	291	255I	509	494	392I
57 UNIV OF MD BALT PROF SCH	207E	205	211	439E	435	511	646E	640	722
58 UNIVERSITY OF COLORADO	202	185	203	1,223	1,197	1,210	1,425	1,382	1,413
59 SUNY DOWNSTATE MED CTR	202I	200I	196	491I	488I	482	693I	688I	678
60 YESHIVA UNIVERSITY	197I	197I	193I	669I	669I	654I	866E	866	847
TOTAL, 1ST 60 INSTS.	19,922	18,108	17,400	71,280	69,827	68,992	91,202	87,935	86,392
61 UNIV OF SOUTHERN CAL	196E	196	196	1,078E	1,078	1,078	1,274E	1,274	1,274
62 UNIV OF MD COLLEGE PARK	196	189	162	1,011	984	924	1,207	1,173	1,086
63 NORTHEASTERN UNIVERSITY	195	46	113	483	304	329	678	350	442
64 UNIVERSITY OF ARIZONA	194	231	194	1,198	1,296	1,145	1,392	1,527	1,339
65 WEST VIRGINIA UNIVERSITY	194	196	204	827	812	880	1,021	1,008	1,084
66 UNIV OF NC AT CHAPEL HILL	185	176	173	1,021	1,020	1,013	1,206	1,196	1,186
67 UNIVERSITY OF CINCINNATI	183	133	132	940	863	827	1,123	996	959
68 UNIVERSITY OF ROCHESTER	177E	177	146	952E	952	921	1,129E	1,129	1,067
69 UNIVERSITY OF KANSAS	176I	175I	173I	1,096I	1,087I	1,070I	1,272I	1,262I	1,243I
70 NEW MEXICO STATE UNIV	170	170	107	901	890	683	1,071	1,060	790
TOTAL, 1ST 70 INSTS.	21,788	19,797	19,000	80,787	79,113	77,862	102,575	98,910	96,862
71 IOWA ST U OF SCI & TECH	168	180	176	1,132	1,302	1,303	1,300	1,482	1,479
72 UNIVERSITY OF VIRGINIA	166I	132	110	881I	735	796	1,047	867	906
73 U TENNESSEE KNOXVILLE	163	164	152	687	719	718	850	883	870
74 VIRGINIA COMMONWLTH UNIV	163	265	145	669	735	673	832	1,000	818
75 UNIVERSITY OF MISSISSIPPI	163	131	87	451	458	432	614	589	519
76 UNIV ALABAMA BIRMINGHAM	162	166	146	887	921	884	1,049	1,087	1,030
77 U OF ARKANSAS MED SCI CAM	153	163	134	578	499	545	731	662	679
78 UNIV OREGON HLTH SCI CTR	153I	152	167	362I	359	391	515I	511	558
79 UNIVERSITY OF MIAMI	152	139	145I	922	920	902I	1,074	1,059	1,047
80 NORTHWESTERN UNIVERSITY	149	177	140	962	914	704	1,111	1,091	844
TOTAL, 1ST 80 INSTS.	23,380	21,466	20,402	88,318	86,675	85,210	111,698	108,141	105,612
81 NEW YORK MEDICAL COLLEGE	149	135	107I	470	482	379I	619	617	486I
82 KANS ST U - AG & APP SCI	149	139	105	901	844	814	1,050	983	919
83 COL OF MED & DENT OF N J	148E	148	148	606E	606	606	754E	754	754
84 UNIV OF CAL IRVINE	141	61	62	558	459	451	699	520	513
85 UNIV TENN CTR HEALTH SCI	140	148	174	412	428	432	552	576	606
86 ARIZONA STATE UNIVERSITY	140	135	45I	585	556	632I	725	691	677
87 BAYLOR COL OF MEDICINE	138	129	130	631	604	608	769	733	738
88 SOUTHERN ILL U-CARBONDALE	136	111	88	657	650	598	793	761	686
89 MEDICAL COL OF GEORGIA	135	142	111	345	350	334	480	492	445
90 TEXAS A & M UNIVERSITY	133	114	110	2,146	2,102	2,058	2,279	2,216	2,168
TOTAL, 1ST 90 INSTS.	24,789	22,728	21,482	95,629	93,756	92,122	120,418	116,484	113,604
91 EMORY UNIVERSITY	133I	133I	129I	673I	673I	643I	806I	806I	772I
92 CLEMSON UNIVERSITY	132	132	74I	750	750	767I	882	882	841
93 N C STATE UNIV AT RALEIGH	131	123	141	1,491	1,465	1,436	1,622	1,588	1,577
94 VANDERBILT UNIVERSITY	128	97	90	764	650	622	892	747	712
95 GEORGE WASHINGTON UNIV	122	146	146	490	483	480	612	629	626
96 SUNY AT BUFFALO	122I	122I	121E	777I	770I	757E	899I	892I	878E
97 INTER AM U P R-CENTRAL	119	114	85	135	124	130	254	238	215
98 FLORIDA STATE UNIVERSITY	116	93	74	535	515	454	651	608	528
99 KENT STATE UNIVERSITY	116	109	56	320	318	311	436	427	367
100 STANFORD UNIVERSITY	115	118	118	987	984	984	1,102	1,102	1,102
TOTAL, 1ST 100 INSTS.	26,023	23,915	22,516	102,551	100,488	98,706	128,574	124,403	121,222
TOTAL, ALL OTHER INSTS.	24,410	22,711	21,681	114,079	112,430	111,967	138,489	135,141	133,648

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DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-40. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY SEX: JANUARY 1980 - JANUARY 1982

INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1982	1981	1980	1982	1981	1980	1982	1981	1980
TOTAL, ALL INSTITUTIONS	20,981	19,161	17,431	60,727	55,612	51,802	81,708	74,773	69,233
1 OHIO STATE UNIVERSITY	465	610	168	1,883	1,074	938	2,348	1,684	1,106
2 CMTY COL ALLEGHENY COUNTY	314I	277I	255I	749I	657I	604I	1,063I	934I	859I
3 HARVARD UNIVERSITY	313	301	266	1,723	1,660	1,627	2,036	1,961	1,893
4 UNIV OF CAL LOS ANGELES	286	254I	257I	519	805I	774I	805	1,059	1,031
5 UNIV OF WIS-MADISON	269	275	261	344	389	376	613	664	637
6 UNIV OF CAL SAN FRANCISCO	266	94I	91I	515	326I	324I	781	420	415
7 UNIV OF CAL BERKELEY	230	216I	249I	581	637I	749I	811	853	998
8 UNIVERSITY OF MICHIGAN	204	230	199	402	465	415	606	695	614
9 UNIVERSITY OF WASHINGTON	197	164	156	382	391	383	579	555	539
10 HOWARD UNIVERSITY	190I	184I	165I	462I	449I	396I	652I	633I	561
TOTAL, 1ST 10 INSTS.	2,734	2,605	2,067	7,560	6,853	6,586	10,294	9,458	8,653
11 CHAPMAN COLLEGE	173I	170I	164I	421I	410I	393I	594I	580I	557I
12 INDIANA UNIV-ALL CAMPUSES	164I	166I	166I	377I	366I	366I	541	532I	532I
13 WAYNE STATE UNIVERSITY	164	206	129	375	426	272	539	632	401
14 NORTHEASTERN UNIVERSITY	161	17	47	593	62	184	754	79	231
15 UNIV OF CAL DAVIS	158	93I	94I	313	279I	285I	471	372	379
16 UNIVERSITY OF MINNESOTA	144	167	157	387	407	433	531	574	590
17 NEW YORK UNIVERSITY	144I	143	161	550I	568	480	694	711	641
18 BOSTON UNIVERSITY	139	127	83	285	255	249	424	382	332
19 YALE UNIVERSITY	137I	117I	124I	258I	182I	191I	395	299	315
20 LOUISIANA STATE UNIV	126	141	104	387	414	404	513	555	508
TOTAL, 1ST 20 INSTS.	4,244	3,952	3,296	11,506	10,222	9,843	15,750	14,174	13,139
21 UNIV OF ILL URBANA	115E	115	81	202E	202	210	317E	317	291
22 UNIVERSITY OF IOWA	111	124	112	206	202	171	317	326	283
23 INTER AM U P R-SAN GERMAN	108	100	61I	256	236	120I	364	336	181I
24 UNIVERSITY OF NEW MEXICO	108	87	88	230	245	222	338	332	310
25 COLUMBIA UNIV MAIN DIV	105	104	104	356	340	348	461	444	452
26 PURDUE UNIVERSITY	105	58	65	268	234	205	373	292	270
27 WEST VALLEY COLLEGE	102I	90I	83I	241I	211I	194I	343I	301I	277I
28 SAN DIEGO EVENING COLLEGE	100I	89I	83I	273I	239I	219I	373I	328I	302I
29 UNIV OF CAL SAN DIEGO	100	30I	34I	195	86I	106I	295	116	140
30 GEORGE WASHINGTON UNIV	99	102	101	429	453	439	528	555	540
TOTAL, 1ST 30 INSTS.	5,297	4,851	4,108	14,162	12,670	12,077	19,459	17,521	16,185
31 MERCY COLLEGE	98I	89I	82	154I	137I	126	252I	226I	208
32 UNIVERSITY OF CONNECTICUT	98	109	103	158	171	182	256	280	285
33 CUYAMOGA CMTY COL DIST	97I	86I	80I	285I	250I	229I	382I	336I	309I
34 ST LOUIS COMMUNITY COL	92	10I	10I	245	30I	27I	337	40I	37I
35 UNIV OREGON HLTH SCI CTR	91I	88	76	175I	171	172	266I	259	248
36 UNIV OF PENNSYLVANIA	91	78	73	259	270	216	350	348	289
37 INTER AM U P R-CENTRAL	87	100	94	229	236	208	316	336	302
38 UNIVERSITY OF KENTUCKY	85	72	79	189	217	221	274	289	300
39 KANS ST U - AG & APP SCI	83	61	53	104	98	158	187	159	211
40 UNIV OF TEXAS AT AUSTIN	82	64	111	167	149	176	249	213	287
TOTAL, 1ST 40 INSTS.	6,201	5,608	4,869	16,127	14,399	13,792	22,328	20,007	18,661
41 PENNSYLVANIA STATE UNIV	80	67	63	132	112	107	212	179	170
42 UNIV OF ILL MED CTR CHGO	77	64	87	198	206	626	275	270	713
43 SAN DIEGO CITY COLLEGE	76I	66	5	162I	143	19	238I	209	24
44 PORTLAND COMMUNITY COL	75I	67	30I	99I	86	58I	174I	153	88I
45 UNIV OF SOUTHERN CAL	74E	74	74	258E	258	258	332E	332	332
46 HILLSBOROUGH CMTY COLLEGE	74I	67	65	165I	143	89	239I	210	154
47 MONTGOMERY COLLEGE	71I	64I	60I	217I	189I	173I	288I	253I	233I
48 FAIRLEIGH DICKINSON UNIV	70E	70	66I	384E	384	342I	454E	454	408I
49 DARTMOUTH COLLEGE	70	49	27I	237	254	128I	307	303	155I
50 CALIF ST UNIV FULLERTON	70	48I	48I	160	126I	122I	230	174I	170I
TOTAL, 1ST 50 INSTS.	6,938	6,244	5,394	18,139	16,300	15,714	25,077	22,544	21,108

SEE FOOTNOTES AT END OF TABLE.

TABLE B-40. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY SEX: JANUARY 1980 - JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	WOMEN			MEN			TOTAL		
	1982	1981	1980	1982	1981	1980	1982	1981	1980
51 PACE UNIVERSITY	69	60	40I	183	129	113I	252	189	153I
52 UNIV OF MD COLLEGE PARK	69	72	66	158	152	163	227	224	229
53 SAN JOSE STATE UNIVERSITY	68	70	82I	244	249	273I	312	319	355I
54 UNIVERSITY OF KANSAS	68I	67I	66I	214I	207I	200I	282I	274I	266I
55 UNIV OF HAWAII-MANOA	68	74	66	212	200	186	280	274	252
56 TUFTS UNIVERSITY	68	64	38	361	280	234	429	344	272
57 SAN FRANCISCO STATE UNIV	67	93	117	131	187	218	198	280	335
58 UNIV OF MD BALT PROF SCH	65E	64	74	313E	310	207	378E	374	281
59 NORTHERN VA COMMUNITY COL	64	17I	16	267	46I	42	331	63I	58
60 JOHN F KENNEDY UNIVERSITY	63	58	59	86	96	88	149	154	147
TOTAL, 1ST 60 INSTS.	7,607	6,883	6,018	20,308	18,156	17,438	27,915	25,039	23,456
61 UNIV OF CAL IRVINE	63	19I	22I	133	75I	75I	196	94	97
62 LOYOLA UNIV - CHICAGO	62	51	50	223	231	241	285	282	291
63 WAYNE COUNTY CMTY COLLEGE	62I	56I	52	96I	83I	76	158I	139I	128
64 LAWRENCE INST OF TECH	62I	58I	54I	134I	118I	108I	196I	176I	162I
65 CUNY QUEENS COLLEGE	61	55	54	110	127	119	171	182	173
66 NE OHIO UNIVS MED SCHOOL	60	2	2	572	3	11	632	5	13
67 UNIVERSITY OF PITTSBURGH	59E	53E	66I	250E	232E	216I	309E	285E	282
68 UNIVERSITY OF OREGON MAIN	59	46	32	88	79	78	147	125	110
69 ANTIOCH UNIVERSITY	59	13I	13I	77	31I	29I	136	44I	42I
70 MASS INST OF TECHNOLOGY	59	55	61	142	145	230	201	200	291
TOTAL, 1ST 70 INSTS.	8,213	7,291	6,424	22,133	19,280	18,621	30,346	26,571	25,045
71 HOUSTON COMMUNITY COLLEGE	58I	52I	33I	125I	109I	72I	183I	161	105I
72 BERGEN COMMUNITY COLLEGE	58I	51I	47	79I	69I	63	137I	120I	110
73 PARKLAND COLLEGE	57I	51	36	86I	75	34	143I	126	70
74 CALIF ST UNIV LONG BEACH	55I	55	58	196I	199	187	251I	254	245
75 U TEX HLTH SCI CTR HOUSTN	55	36I	35	162	181I	175	217	217I	210
76 UNIVERSITY OF BRIDGEPORT	55	49	54	67	68	59	122	117	113
77 CORNELL UNIVERSITY	55	51	40	75	104	82	130	155	122
78 UNIVERSITY OF UTAH	55	54	101I	183	178	301I	238	232	402E
79 UNIV OF NEBRASKA-LINCOLN	54	39	44	100	95	102	154	134	146
80 TIDEWATER COMMUNITY COL	54	63	46	117	93	92	171	156	138
TOTAL, 1ST 80 INSTS.	8,769	7,792	6,918	23,323	20,451	19,788	32,092	28,243	26,706
81 SINCLAIR COMMUNITY COL	54	61	24	243	254	117	297	315	141
82 METROPOLITAN STATE COL	-C	35	-C	-C	102	-C	-C	137	-C
83 OREGON STATE UNIVERSITY	53	37	24I	60	54	77I	113	91	101
84 UNIVERSITY OF CINCINNATI	52	68	45	173	178	171	225	246	216
85 KEAN COL OF NEW JERSEY	52E	52	31I	128E	128	66I	180E	180	97I
86 YESHIVA UNIVERSITY	51I	51I	44I	205I	205I	178I	256E	256	222
87 MILLIAM RAINEY HARPER COL	50	53I	49	98	104I	95	148	157I	144
88 CUNY BERNARD BARUCH COL	50	45	49I	137	146	93I	187	191	142I
89 MIAMI-DADE CMTY COLLEGE	49	46	54	174	148	151	223	194	205
90 CUNY HUNTER COLLEGE	48	53I	53I	66	121I	117I	114	174I	170I
TOTAL, 1ST 90 INSTS.	9,281	8,293	7,328	24,745	21,891	20,967	34,026	30,184	28,295
91 CALIF ST UNIV NORTHRIDGE	48	60	51	135	159	154	183	219	205
92 UNIV OF SOUTH CAROLINA	48	38	29	98	102	87	146	140	116
93 SUNY AT BUFFALO	47I	45I	44E	277I	270I	261E	324I	315I	305E
94 UNIV OF WIS-MILWAUKEE	46	66	55	103	102	103	149	168	158
95 CALIF STATE UNIV CHICO	46	37	37	81	57	57	127	94	94
96 UNIV OF P R-RIO PIEDRAS	45	6	17I	49	23	37I	94	29	54I
97 CALIF ST UNIV LOS ANGELES	44	39	33	149	140	136	193	179	169
98 PORTLAND STATE UNIVERSITY	43	39	37I	95	71	64I	138	110	101
99 CALIF ST UNIV SACRAMENTO	43I	43	26I	105I	107	86I	148I	150	112I
100 SAN DIEGO STATE UNIV	42I	42	27I	142I	137	95I	184I	179	122
TOTAL, 1ST 100 INSTS.	9,733	8,708	7,684	25,979	23,959	22,047	35,712	31,767	29,731
TOTAL, ALL OTHER INSTS.	11,248	10,453	9,747	34,748	32,553	29,755	45,996	43,006	39,502

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SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-41. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	267063	50433	28049	875	28505	2668	8568	809	28322	4861	115214	28661	16767	4450	41638	8109
1 HARVARD UNIVERSITY	3956	751	40	1	188	16	54	4	55	6	3444	687	44	18	131	19
2 JOHNS HOPKINS UNIVERSITY	3327	472	955	9	388	19	24	4	200	46	1607	352	30	5	123	37
3 UNIV OF WIS-MADISON	3116	751	309	28	202	9	202	35	190	14	1726	514	163	57	324	94
4 UNIVERSITY OF MINNESOTA	3003	518	197	3	166	8	65	5	147	15	1794	350	112	29	522	108
5 LOUISIANA STATE UNIV	2559	596	149	2	130	3	122	32	148	34	1831	495	37	6	142	24
6 UNIVERSITY OF MICHIGAN	2458	587	336	19	274	32	60	4	112	8	1233	381	158	59	285	84
7 CORNELL UNIVERSITY	2285	407	315	13	203	16	31	3	66	10	1304	266	108	44	258	55
8 TEXAS A & M UNIVERSITY	2279	133	418	7	100	2	78	4	135	11	1078	50	46	9	424	50
9 UNIV OF ILL URBANA	2246	381	387	15	287	29	122	26	183	28	728	136	150	52	389	95
10 UNIVERSITY OF FLORIDA	2205	373	196	2	96	2	12	0	81	7	1652	330	47	12	121	20
TOTAL, 1ST 10 INSTS.	27434	4969	3302	99	2034	136	770	117	1317	179	16397	3561	895	291	2719	586
11 UNIV OF CAL LOS ANGELES	2094	555	188	14	155	19	102	11	75	6	1234	426	76	13	264	66
12 PENNSYLVANIA STATE UNIV	2071	220	624	18	192	12	84	3	179	35	710	108	76	16	206	28
13 UNIVERSITY OF WASHINGTON	1941	390	275	12	126	1	153	23	79	6	1064	291	50	13	194	44
14 YALE UNIVERSITY	1910	450	50	3	149	5	24	1	66	9	1405	386	44	20	172	26
15 MASS INST OF TECHNOLOGY	1896	262	628	38	474	38	107	13	142	11	340	133	20	3	185	26
16 UNIVERSITY OF KENTUCKY	1892	40[illegible]	159	6	111	15	55	6	157	39	1138	286	65	21	207	28
17 OHIO STATE UNIVERSITY	1884	343	246	7	116	5	42	5	136	11	1042	255	48	9	254	51
18 UNIVERSITY OF UTAH	1784	457	152	10	142	13	55	5	84	7	1186	377	41	5	124	40
19 PURDUE UNIVERSITY	1778	229	457	13	213	12	26	1	178	21	613	138	86	22	205	22
20 COLUMBIA UNIV MAIN DIV	1766	412	111	8	130	10	190	53	39	2	1035	274	16	4	245	61
TOTAL, 1ST 20 INSTS.	46450	8688	6192	228	3842	266	1608	238	2452	326	26164	6235	1417	417	4775	978
21 UNIVERSITY OF PITTSBURGH	1733	489	156	6	163	9	16	0	118	18	1079	403	65	29	136	24
22 MICHIGAN STATE UNIVERSITY	1701	258	121	0	196	13	35	2	141	16	814	157	113	31	281	39
23 UNIV OF TEXAS AT AUSTIN	1671	323	247	27	407	48	176	38	208	29	222	75	112	27	299	79
24 N C STATE UNIV AT RALEIGH	1622	131	291	11	88	7	30	0	140	16	878	64	21	4	174	29
25 UNIVERSITY OF IOWA	1594	308	72	0	96	1	12	0	74	7	1140	265	35	8	165	27
26 RUTGERS THE ST UNIV OF NJ	1564	329	106	4	175	25	52	6	232	31	421	80	126	38	452	145
27 DUKE UNIVERSITY	1563	299	49	0	72	7	22	5	36	3	1231	256	23	4	130	24
28 UNIV OF CAL DAVIS	1562	285	76	6	66	6	18	0	42	5	1205	227	18	4	137	37
29 UNIV OF PENNSYLVANIA	1546	255	85	6	93	6	4	0	85	8	1017	189	25	3	237	43
30 WASHINGTON UNIVERSITY	1530	323	74	0	74	5	0	0	61	13	1238	294	25	5	58	6
TOTAL, 1ST 30 INSTS.	62536	11688	7469	288	5272	393	1973	289	3589	472	35409	8245	1980	570	6844	1431
31 UNIV OF CAL BERKELEY	1504	281	305	24	225	22	41	4	81	7	571	146	52	21	229	57
32 INDIANA UNIV-ALL CAMPUSES	1442	310	46	5	171	18	54	3	128	16	721	203	99	18	223	47
33 UNIVERSITY OF COLORADO	1425	202	142	4	193	16	76	5	85	9	675	122	81	19	173	27
34 NEW YORK UNIVERSITY	1392	293	25	0	75	6	0	0	116	8	948	220	72	24	156	35
35 UNIVERSITY OF ARIZONA	1392	194	150	1	184	4	103	6	103	8	586	120	79	22	187	33
36 UNIVERSITY OF CONNECTICUT	1337	342	139	10	59	4	31	5	72	10	704	202	115	41	217	70
37 UNIV OF CAL SAN FRANCISCO	1332	511	0	0	0	0	0	0	0	0	1332	511	0	0	0	0
38 UNIVERSITY OF CHICAGO	1320	242	45	1	204	15	41	1	62	1	794	197	44	13	130	14
39 CASE WESTERN RESERVE UNIV	1307	219	117	4	80	3	7	0	36	3	1016	195	13	3	38	11
40 IOWA ST U OF SCI & TECH	1300	168	349	37	69	5	16	0	140	18	563	89	24	2	139	17
TOTAL, 1ST 40 INSTS.	76287	14450	8787	374	6532	486	2342	313	4412	552	43319	10250	2559	733	8336	1742
41 UNIV OF SOUTHERN CAL	1274	196	128	2	85	7	14	0	39	1	877	165	38	6	93	15
42 UNIVERSITY OF KANSAS	1272	176	148	1	111	6	50	5	93	7	626	109	61	12	183	35
43 UNIV OF CAL SAN DIEGO	1270	274	21	1	143	15	248	36	60	3	680	194	28	7	90	18
44 UNIV OF MISSOURI COLUMBIA	1240	226	115	3	49	2	22	1	60	9	838	178	39	8	117	25
45 UNIV OF MD COLLEGE PARK	1207	196	190	9	337	45	24	3	139	20	303	75	44	10	170	34
46 UNIV OF NC AT CHAPEL HILL	1206	185	37	1	78	4	20	0	51	3	829	137	42	10	149	30
47 CUNY MT SINAI SCH OF MED	1192	288	27	0	27	2	4	1	19	2	1091	278	4	1	20	4
48 UNIVERSITY OF ROCHESTER	1129	177	42	2	198	3	7	0	54	3	660	143	82	20	86	6
49 UNIVERSITY OF GEORGIA	1124	105	28	1	72	2	58	6	81	13	650	47	67	8	168	28
50 UNIVERSITY OF CINCINNATI	1123	183	132	6	69	1	15	1	68	14	719	143	41	6	79	12
TOTAL, 1ST 50 INSTS.	88324	16456	9655	400	7701	573	2804	366	5076	627	50592	11719	3005	822	9491	1949
TOTAL, ALL OTHER INSTS.	178739	33977	18394	475	20804	2095	5764	443	23246	4234	64622	16942	13762	3628	32147	6160

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-42. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	81708	20981	8370	369	5872	1307	1491	323	13817	3773	31022	8502	6897	2772	14239	3935
1 OHIO STATE UNIVERSITY	2348	465	89	5	47	9	13	1	77	16	1711	260	28	10	383	164
2 HARVARD UNIVERSITY	2036	313	8	0	38	2	1	0	12	0	1912	301	17	7	48	3
3 CNTY COL ALLEGHENY COUNTY	1063	314	111	1	168	44	0	0	291	87	187	68	159	69	147	45
4 UNIV OF CAL BERKELEY	811	230	122	15	223	39	51	3	24	5	264	101	24	18	103	49
5 UNIV OF CAL LOS ANGELES	805	286	64	5	59	9	21	2	6	0	546	218	34	18	75	34
6 UNIV OF CAL SAN FRANCISCO	781	266	0	0	0	0	0	0	0	0	781	266	0	0	0	0
7 NORTHEASTERN UNIVERSITY	754	161	117	4	112	17	10	0	206	25	119	58	56	14	134	43
8 NEW YORK UNIVERSITY	694	144	6	0	12	4	3	2	20	5	445	61	89	40	119	32
9 HOWARD UNIVERSITY	652	190	41	1	110	35	51	24	4	0	393	119	5	0	48	11
10 NE OHIO UNIVS MED SCHOOL	632	60	0	0	0	0	0	0	0	0	632	60	0	0	0	0
TOTAL, 1ST 10 INSTS.	10576	2429	558	31	769	159	150	32	640	138	6990	1512	412	176	1057	381
11 UNIV OF WIS-MADISON	613	269	55	9	26	5	29	8	27	11	353	165	37	27	86	44
12 UNIVERSITY OF MICHIGAN	606	204	87	11	30	10	7	2	8	5	366	113	47	31	61	32
13 CHAPMAN COLLEGE	594	173	0	0	33	4	0	0	51	15	71	29	123	45	316	80
14 UNIVERSITY OF WASHINGTON	579	197	34	1	29	3	37	6	12	2	389	165	14	7	64	13
15 INDIANA UNIV-ALL CAMPUSES	541	164	53	2	40	12	11	2	36	9	283	96	25	6	93	37
16 WAYNE STATE UNIVERSITY	539	164	56	11	34	6	2	1	60	11	209	63	59	31	119	41
17 UNIVERSITY OF MINNESOTA	531	144	57	4	10	3	5	2	23	1	351	85	11	9	74	40
18 GEORGE WASHINGTON UNIV	528	99	119	0	25	5	13	0	72	5	197	45	28	22	74	22
19 LOUISIANA STATE UNIV	513	126	15	1	4	0	12	7	29	16	436	98	5	1	12	3
20 UNIV OF CAL DAVIS	471	158	40	4	19	3	0	0	9	3	364	127	4	2	35	19
TOTAL, 1ST 20 INSTS.	16091	4127	1074	74	1019	210	266	60	967	216	10009	2498	765	357	1991	712
21 PHILA COL OSTEOPATHIC MED	463	9	0	0	0	0	0	0	0	0	463	9	0	0	0	0
22 COLUMBIA UNIV MAIN DIV	461	105	33	0	11	1	9	2	13	1	291	74	2	1	102	26
23 FAIRLEIGH DICKINSON UNIV	454	70	51	2	34	7	2	0	52	15	236	24	28	9	51	13
24 WASHINGTON STATE UNIV	433	38	82	2	13	2	5	0	30	3	243	22	6	0	54	9
25 TUFTS UNIVERSITY	429	68	13	1	3	1	0	0	8	3	387	57	4	3	14	3
26 BOSTON UNIVERSITY	424	139	45	2	2	0	1	1	151	19	145	67	1	1	79	49
27 YALE UNIVERSITY	395	137	15	0	26	5	3	0	7	1	272	111	23	14	49	6
28 CUYAHOGA CNTY COL DIST	382	97	56	0	35	7	1	0	124	34	35	13	46	20	85	23
29 UNIV OF MD BALT PROF SCH	378	65	0	0	0	0	0	0	1	0	367	60	0	0	10	5
30 PURDUE UNIVERSITY	373	105	100	4	26	4	3	2	94	36	78	46	18	7	54	6
TOTAL, 1ST 30 INSTS.	20283	4960	1469	85	1169	237	290	65	1447	328	12526	2981	893	412	2489	852
31 SAN DIEGO EVENING COLLEGE	373	100	48	0	30	6	6	1	95	30	58	18	49	22	87	23
32 INTER AM U P R-SAN GERMAN	364	108	6	0	27	4	7	2	74	16	71	25	49	14	130	47
33 UNIV OF PENNSYLVANIA	350	91	34	5	16	0	1	1	14	0	248	73	9	7	28	5
34 WEST VALLEY COLLEGE	343	102	62	1	24	5	4	0	39	14	87	37	58	26	69	19
35 UNIVERSITY OF NEW MEXICO	338	108	70	3	23	9	16	1	31	10	159	68	9	4	30	13
36 ST LOUIS COMMUNITY COL	337	92	59	2	29	9	3	0	119	24	72	41	17	5	38	11
37 UNIV OF SOUTHERN CAL	332	74	20	0	10	1	0	0	5	0	251	60	11	0	35	13
38 NORTHERN VA COMMUNITY COL	331	64	82	2	19	7	5	2	130	15	40	21	25	12	30	5
39 SUNY AT BUFFALO	324	47	21	3	7	0	0	0	0	0	285	39	3	2	8	3
40 UNIV OF ILL URBANA	317	115	36	6	24	7	42	15	13	6	112	37	25	13	65	31
TOTAL, 1ST 40 INSTS.	23692	5861	1907	107	1378	285	374	87	1967	443	13909	3400	1148	517	3009	1022
41 UNIVERSITY OF IOWA	317	111	9	0	1	0	1	1	6	1	262	101	3	1	35	7
42 INTER AM U P R-CENTRAL	316	87	0	0	26	4	6	2	53	15	86	19	52	16	93	31
43 SAN JOSE STATE UNIVERSITY	312	68	123	5	30	7	16	2	43	14	19	8	8	7	73	25
44 UNIVERSITY OF PITTSBURGH	309	59	24	2	13	1	3	0	51	10	185	32	3	1	30	13
45 DARTMOUTH COLLEGE	307	70	10	0	17	3	7	0	10	1	243	59	6	3	14	4
46 SINCLAIR COMMUNITY COL	297	54	65	1	21	2	2	0	73	13	36	24	26	6	74	8
47 UNIV OF CAL SAN DIEGO	295	100	4	0	23	3	34	11	13	0	199	79	9	5	13	2
48 MONTGOMERY COLLEGE	288	71	18	0	31	5	1	0	58	17	22	8	35	15	123	26
49 LOYOLA UNIV - CHICAGO	285	62	0	0	11	2	0	0	23	4	196	34	25	12	30	10
50 UNIVERSITY OF KANSAS	282	68	30	1	19	4	7	1	17	6	156	37	14	6	39	13
TOTAL, 1ST 50 INSTS.	26700	6611	2190	116	1570	316	451	104	2314	524	15313	3801	1329	589	3533	1161
TOTAL, ALL OTHER INSTS.	55008	14370	6180	253	4302	991	1040	219	11503	3249	15709	4701	5568	2183	10706	2774

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-43. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRONMENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	187080	35355	20655	674	18677	1678	6860	605	21058	3678	78085	19791	11863	3144	29882	5785
1 UNIV OF WIS-MADISON	3116	751	309	28	202	9	202	35	190	14	1726	514	163	57	324	94
2 UNIVERSITY OF MINNESOTA	3003	518	197	3	166	8	65	5	147	15	1794	350	112	29	522	108
3 LOUISIANA STATE UNIV	2559	596	149	2	130	3	122	32	148	34	1831	495	37	6	142	24
4 UNIVERSITY OF MICHIGAN	2458	587	336	19	274	32	60	4	112	8	1233	381	158	59	285	84
5 TEXAS A & M UNIVERSITY	2279	133	418	7	100	2	78	4	135	11	1078	50	46	9	424	50
6 UNIV OF ILL URBANA	2246	381	387	15	287	29	122	26	183	28	728	136	150	52	389	95
7 UNIVERSITY OF FLORIDA	2205	373	196	2	96	2	12	0	81	7	1652	330	47	12	121	20
8 UNIV OF CAL LOS ANGELES	2094	555	188	14	155	19	102	11	75	6	1234	426	76	13	264	66
9 PENNSYLVANIA STATE UNIV	2071	220	624	18	192	12	84	3	179	35	710	108	76	16	206	28
10 UNIVERSITY OF WASHINGTON	1941	390	275	12	126	1	153	23	79	6	1064	291	50	13	194	44
TOTAL, 1ST 10 INSTS.	23972	4504	3079	120	1728	117	1000	143	1329	164	13050	3081	915	266	2871	613
11 UNIVERSITY OF KENTUCKY	1892	401	159	6	111	15	55	6	157	39	1138	286	65	21	207	28
12 OHIO STATE UNIVERSITY	1884	343	246	7	116	5	42	5	136	11	1042	255	48	9	254	51
13 UNIVERSITY OF UTAH	1784	457	152	10	142	13	55	5	84	7	1186	377	41	5	124	40
14 PURDUE UNIVERSITY	1778	229	457	13	213	12	26	1	178	21	613	138	86	22	205	22
15 UNIVERSITY OF PITTSBURGH	1733	489	156	6	163	9	16	0	118	18	1079	403	65	29	136	24
16 MICHIGAN STATE UNIVERSITY	1701	258	121	0	196	13	35	2	141	16	814	157	113	31	281	39
17 UNIV OF TEXAS AT AUSTIN	1671	323	247	27	407	48	176	38	208	29	222	75	112	27	299	79
18 N C STATE UNIV AT RALEIGH	1622	131	291	11	88	7	30	0	140	16	878	64	21	4	174	29
19 UNIVERSITY OF IOWA	1594	308	72	0	96	1	12	0	74	7	1140	265	35	8	165	27
20 RUTGERS THE ST UNIV OF NJ	1564	329	106	4	175	25	52	6	232	31	421	80	126	38	452	145
TOTAL, 1ST 20 INSTS.	41195	7772	5086	204	3435	265	1499	206	2797	359	21583	5181	1627	460	5168	1097
21 UNIV OF CAL DAVIS	1562	285	76	6	66	6	18	0	42	5	1205	227	18	4	137	37
22 UNIV OF CAL BERKELEY	1504	281	305	24	225	22	41	4	81	7	571	146	52	21	229	57
23 INDIANA UNIV-ALL CAMPUSES	1442	310	46	5	171	18	54	3	128	16	721	203	99	18	223	47
24 UNIVERSITY OF COLORADO	1425	202	142	4	193	16	76	5	85	9	675	122	81	19	173	27
25 UNIVERSITY OF ARIZONA	1392	194	150	1	184	4	103	6	103	8	586	120	79	22	187	33
26 UNIVERSITY OF CONNECTICUT	1337	342	139	10	59	4	31	5	72	10	704	202	115	41	217	70
27 UNIV OF CAL SAN FRANCISCO	1332	511	0	0	0	0	0	0	0	0	1332	511	0	0	0	0
28 IOWA ST U OF SCI & TECH	1300	168	349	37	69	5	16	0	140	18	563	89	24	2	139	17
29 UNIVERSITY OF KANSAS	1272	176	148	1	111	6	50	5	93	7	626	109	61	13	183	35
30 UNIV OF CAL SAN DIEGO	1270	274	21	1	143	15	248	36	60	3	680	194	28	7	90	18
TOTAL, 1ST 30 INSTS.	55031	10515	6462	293	4656	361	2136	270	3601	442	29246	7104	2184	607	6746	1438
31 UNIV OF MISSOURI COLUMBIA	1240	226	115	3	49	2	22	1	60	9	838	178	39	8	117	25
32 UNIV OF MD COLLEGE PARK	1207	196	190	9	337	45	24	3	139	20	303	75	44	10	170	34
33 UNIV OF NC AT CHAPEL HILL	1206	185	37	1	78	4	20	0	51	3	829	137	42	10	149	30
34 UNIVERSITY OF GEORGIA	1124	105	28	1	72	2	58	6	81	13	650	47	67	8	168	28
35 UNIVERSITY OF CINCINNATI	1123	183	132	6	69	1	15	1	68	14	719	143	41	6	79	12
36 TEMPLE UNIVERSITY	1120	217	26	1	47	2	18	2	95	12	674	132	97	25	163	43
37 VA POLYTECH INST & ST U	1089	75	309	10	77	2	38	2	118	20	416	26	25	3	106	12
38 WAYNE STATE UNIVERSITY	1088	332	76	19	81	22	7	1	62	17	741	243	36	9	85	21
39 NEW MEXICO STATE UNIV	1071	170	198	5	84	9	20	0	154	28	327	55	125	31	163	42
40 GEORGIA INSTITUTE OF TECH	1055	65	660	28	169	9	36	3	100	13	23	2	17	3	50	7
TOTAL, 1ST 40 INSTS.	66354	12269	8233	376	5719	459	2394	289	4529	591	34766	8142	2717	720	7996	1692
41 SUNY AT STONY BROOK	1052	224	65	1	198	18	50	3	80	11	500	153	50	13	109	25
42 KANS ST U - AG & APP SCI	1050	149	147	3	62	2	11	1	66	3	612	112	16	1	136	27
43 UNIV ALABAMA BIRMINGHAM	1049	162	26	1	30	0	4	0	34	5	897	145	27	7	31	4
44 UNIVERSITY OF VIRGINIA	1047	166	131	4	120	8	41	0	78	11	548	124	34	6	95	13
45 UNIV OF HAWAII-MANOA	1043	210	58	0	87	1	99	11	53	4	524	161	35	7	187	26
46 OREGON STATE UNIVERSITY	1042	111	114	0	77	7	127	2	77	8	558	81	12	3	77	10
47 COLORADO STATE UNIVERSITY	1037	107	165	3	59	2	67	4	85	3	487	70	45	12	129	13
48 UNIV OF SOUTH CAROLINA	1032	252	61	2	98	15	40	1	156	29	382	158	71	13	224	34
49 WEST VIRGINIA UNIVERSITY	1021	194	98	3	33	2	16	1	52	9	350	56	22	7	450	116
50 UNIVERSITY OF NEW MEXICO	952	279	162	16	77	23	31	2	81	13	458	200	35	2	108	23
TOTAL, 1ST 50 INSTS.	76679	14123	9260	409	6560	537	2880	314	5291	687	40082	9402	3064	791	9542	1983
TOTAL, ALL OTHER INSTS.	110401	21232	11395	265	12117	1141	3980	291	15767	2991	38003	10389	8799	2353	20340	3802

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-44. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PUBLIC UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	53258	14268	6195	294	3929	850	1104	224	10095	2878	18870	5744	4071	1698	8994	2580
1 OHIO STATE UNIVERSITY	2348	465	89	5	47	9	13	1	77	16	1711	260	28	10	383	164
2 CMTY COL ALLEGHENY COUNTY	1063	314	111	1	168	44	0	0	291	87	187	68	159	69	147	45
3 UNIV OF CAL BERKELEY	811	230	122	15	223	39	51	3	24	5	264	101	24	18	103	49
4 UNIV OF CAL LOS ANGELES	805	286	64	5	59	9	21	2	6	0	546	218	34	18	75	34
5 UNIV OF CAL SAN FRANCISCO	781	266	0	0	0	0	0	0	0	0	781	266	0	0	0	0
6 UNIV OF WIS-MADISON	613	269	55	9	26	5	29	8	27	11	353	165	37	27	86	44
7 UNIVERSITY OF MICHIGAN	606	204	87	11	30	10	7	2	8	5	366	113	47	31	61	32
8 UNIVERSITY OF WASHINGTON	579	197	34	1	29	3	37	6	12	2	389	165	14	7	64	13
9 INDIANA UNIV-ALL CAMPUSES	541	164	53	2	40	12	11	2	36	9	283	96	25	6	93	37
10 WAYNE STATE UNIVERSITY	539	164	56	11	34	6	2	1	60	11	209	63	59	31	119	41
TOTAL, 1ST 10 INSTS.	8686	2559	671	60	656	137	171	25	541	146	5089	1515	427	217	1131	459
11 UNIVERSITY OF MINNESOTA	531	144	57	4	10	3	5	2	23	1	351	85	11	9	74	40
12 LOUISIANA STATE UNIV	513	126	15	1	4	0	12	7	29	16	436	98	5	1	12	3
13 UNIV OF CAL DAVIS	471	158	40	4	19	3	0	0	9	3	364	127	4	2	35	19
14 WASHINGTON STATE UNIV	433	38	82	2	13	2	5	0	30	3	243	22	6	0	54	9
15 CUYAHOGA CMTY COL DIST	382	97	56	0	35	7	1	0	124	34	35	13	46	20	85	23
16 UNIV OF MD BALT PROF SCH	378	65	0	0	0	0	0	0	1	0	367	60	0	0	10	5
17 PURDUE UNIVERSITY	373	105	100	4	26	4	3	2	94	36	78	46	18	7	54	6
18 SAN DIEGO EVENING COLLEGE	373	100	48	0	30	6	6	1	95	30	58	18	49	22	87	23
19 WEST VALLEY COLLEGE	343	102	62	1	24	5	4	0	39	14	87	37	58	26	69	19
20 UNIVERSITY OF NEW MEXICO	338	108	70	3	23	9	16	1	31	10	159	68	9	4	30	13
TOTAL, 1ST 20 INSTS.	12821	3602	1201	79	840	176	223	38	1016	293	7267	2089	633	308	1641	619
21 ST LOUIS COMMUNITY COL	337	92	59	2	29	9	3	0	119	24	72	41	17	5	38	11
22 NORTHERN VA COMMUNITY COL	331	64	82	2	19	7	5	2	130	15	40	21	25	12	30	5
23 SUNY AT BUFFALO	324	47	21	3	7	0	0	0	0	0	285	39	3	2	8	3
24 UNIVERSITY OF IOWA	317	111	9	0	1	0	1	1	6	1	262	101	3	1	35	7
25 UNIV OF ILL URBANA	317	115	36	6	24	7	42	15	13	6	112	37	25	13	65	31
26 INTER AM U P R-CENTRAL	316	83	0	0	26	4	6	2	53	15	86	19	52	16	93	31
27 SAN JOSE STATE UNIVERSITY	312	68	123	5	30	7	16	2	43	14	19	8	8	7	73	25
28 UNIVERSITY OF PITTSBURGH	309	59	24	2	13	1	3	0	51	10	185	32	3	1	30	13
29 SINCLAIR COMMUNITY COL	297	54	65	1	21	2	2	0	73	13	36	24	26	6	74	8
30 UNIV OF CAL SAN DIEGO	295	100	4	0	23	3	34	11	13	0	199	79	9	5	13	2
TOTAL, 1ST 30 INSTS.	15976	4399	1624	100	1033	216	335	71	1517	391	8563	2490	804	376	2100	755
31 MONTGOMERY COLLEGE	288	71	18	0	31	5	1	0	58	17	22	8	35	15	123	26
32 UNIVERSITY OF KANSAS	282	68	30	1	19	4	7	1	17	6	156	37	14	6	39	13
33 UNIV OF HAWAII-MANOA	280	68	10	4	7	3	9	1	17	1	177	38	6	2	54	19
34 UNIV OF ILL MED CTR CHGO	275	77	0	0	0	0	0	0	0	0	274	77	1	0	0	0
35 UNIVERSITY OF KENTUCKY	274	85	30	1	8	3	2	1	33	11	136	37	37	21	28	11
36 U TEX HLTH SCI CTR DALLAS	271	17	0	0	0	0	0	0	3	0	261	16	7	1	0	0
37 UNIV OREGON HLTH SCI CTR	266	91	0	0	0	0	0	0	0	0	262	91	4	0	0	0
38 UNIVERSITY OF CONNECTICUT	256	98	14	1	4	1	0	0	14	3	156	56	20	12	48	25
39 CALIF ST UNIV LONG BEACH	251	55	89	4	32	8	4	1	35	12	13	5	23	7	55	18
40 UNIV OF TEXAS AT AUSTIN	249	82	42	5	42	8	3	0	25	8	44	20	34	15	59	26
TOTAL, 1ST 40 INSTS.	18668	5111	1857	116	1176	248	361	75	1719	449	10064	2875	985	455	2506	893
41 HILLSBOROUGH CMTY COLLEGE	239	74	7	0	13	3	0	0	43	20	43	26	33	16	100	9
42 SAN DIEGO CITY COLLEGE	238	76	26	9	20	2	7	1	63	6	50	34	35	17	37	7
43 UNIVERSITY OF UTAH	238	55	45	1	21	1	8	2	13	3	108	38	9	2	34	8
44 COL OF MED & DENT OF N J	231	24	1	0	0	0	0	0	0	0	216	20	14	4	0	0
45 CALIF ST UNIV FULLERTON	230	70	35	1	21	4	3	1	55	12	22	9	48	30	46	13
46 UNIV OF MD COLLEGE PARK	227	69	61	5	35	12	1	0	28	9	39	22	1	1	62	20
47 CALIF ST POLY UNIV POMONA	225	40	88	2	33	8	2	1	38	6	37	14	6	2	21	7
48 UNIVERSITY OF CINCINNATI	225	52	75	1	2	1	0	0	19	5	113	39	11	5	5	1
49 MIAMI-DADE CMTY COLLEGE	223	49	32	1	12	4	4	1	69	17	50	9	21	10	35	7
50 U TEX HLTH SCI CTR HOUSTN	217	55	0	0	0	0	0	0	7	2	210	53	0	0	0	0
TOTAL, 1ST 50 INSTS.	20961	5675	2227	136	1333	283	386	81	2054	529	10952	3139	1163	542	2846	965
TOTAL, ALL OTHER INSTS.	32297	8593	3968	158	2596	567	718	143	8041	2349	7918	2605	2908	1156	6148	1615

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-45. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	79983	15078	7394	201	9828	990	1708	204	7264	1183	37129	8870	4904	1306	11756	2324
1 HARVARD UNIVERSITY	3956	751	40	1	188	16	54	4	55	6	3444	687	44	18	131	19
2 JOHNS HOPKINS UNIVERSITY	3327	472	955	9	388	19	24	4	200	46	1607	352	30	5	123	37
3 CORNELL UNIVERSITY	2285	407	315	13	203	16	31	3	66	10	1304	266	108	44	258	55
4 YALE UNIVERSITY	1910	450	50	3	149	5	24	1	66	9	1405	386	44	20	172	26
5 MASS INST OF TECHNOLOGY	1896	262	628	38	474	38	107	13	142	11	340	133	20	3	185	26
6 COLUMBIA UNIV MAIN DIV	1766	412	111	8	130	10	190	53	39	2	1035	274	16	4	245	61
7 DUKE UNIVERSITY	1563	299	49	0	72	7	22	5	36	3	1231	256	23	4	130	24
8 UNIV OF PENNSYLVANIA	1546	255	85	6	93	6	4	0	85	8	1017	189	25	3	237	43
9 WASHINGTON UNIVERSITY	1530	323	74	0	74	5	0	0	61	13	1238	294	25	5	58	6
10 NEW YORK UNIVERSITY	1392	293	25	0	75	6	0	0	116	8	948	220	72	24	156	35
TOTAL, 1ST 10 INSTS.	21171	3924	2332	78	1846	128	456	83	866	116	13569	3057	407	130	1695	332
11 UNIVERSITY OF CHICAGO	1320	242	45	1	204	15	41	1	62	1	794	197	44	13	130	14
12 CASE WESTERN RESERVE UNIV	1307	219	117	4	80	3	7	0	36	3	1016	195	13	3	38	11
13 UNIV OF SOUTHERN CAL	1274	196	128	2	85	7	14	0	39	1	877	165	38	6	93	15
14 CUNY MT SINAI SCH OF MED	1192	288	27	0	27	2	4	1	19	2	1091	278	4	1	20	4
15 UNIVERSITY OF ROCHESTER	1129	177	42	2	198	3	7	0	54	3	660	143	82	20	86	6
16 NORTHWESTERN UNIVERSITY	1111	149	159	7	174	16	15	3	103	7	472	89	32	8	156	19
17 STANFORD UNIVERSITY	1102	115	280	10	146	8	35	3	89	4	422	65	28	8	102	17
18 UNIVERSITY OF MIAMI	1074	152	60	1	44	0	88	7	51	6	733	122	36	7	62	9
19 HOWARD UNIVERSITY	979	263	44	0	142	34	48	20	25	2	645	186	17	2	58	19
20 VANDERBILT UNIVERSITY	892	128	56	3	62	2	8	0	47	4	581	101	70	13	68	5
TOTAL, 1ST 20 INSTS.	32551	5853	3290	108	3008	218	723	118	1391	149	20860	4598	771	211	2508	451
21 BOSTON UNIVERSITY	886	263	32	3	76	7	5	0	44	6	556	195	39	16	134	36
22 YESHIVA UNIVERSITY	866	197	5	0	60	12	0	0	8	1	690	151	49	19	54	14
23 GEORGETOWN UNIVERSITY	833	207	0	0	30	1	0	0	15	1	696	188	11	2	81	15
24 EMORY UNIVERSITY	806	133	90	5	81	4	15	1	47	3	447	95	35	11	91	14
25 BAYLOR COL OF MEDICINE	769	138	0	0	0	0	0	0	0	0	769	138	0	0	0	0
26 NORTHEASTERN UNIVERSITY	678	195	153	6	97	14	11	0	59	14	225	126	33	8	100	27
27 NEW YORK MEDICAL COLLEGE	619	149	0	0	0	0	0	0	0	0	619	149	0	0	0	0
28 GEORGE WASHINGTON UNIV	612	122	68	2	37	0	8	0	56	10	316	81	30	11	97	18
29 BRIGHAM YOUNG UNIVERSITY	580	64	86	0	58	0	23	1	128	11	143	39	39	6	103	7
30 CARNEGIE-MELLON UNIV	546	84	175	10	145	21	0	0	86	7	79	32	32	10	29	4
TOTAL, 1ST 30 INSTS.	39746	7405	3899	134	3592	277	785	120	1834	202	25400	5792	1039	294	3197	586
31 TULANE UNIVERSITY	528	78	41	0	31	2	8	2	37	3	311	51	27	7	73	13
32 CALIFORNIA INST OF TECH	528	57	136	3	216	21	56	10	27	1	70	20	0	0	23	2
33 PRINCETON UNIVERSITY	504	62	96	2	132	8	40	7	50	2	52	17	22	4	112	22
34 SYRACUSE UNIVERSITY	498	93	79	2	65	4	9	0	92	16	76	40	34	3	143	28
35 ST LOUIS UNIVERSITY	490	101	9	0	22	1	14	0	26	8	357	76	20	4	42	12
36 LOMA LINDA UNIVERSITY	482	104	54	0	49	12	10	0	28	7	268	77	20	3	53	5
37 WAKE FOREST UNIVERSITY	466	48	2	0	21	0	0	0	19	2	372	33	20	7	32	6
38 ROCKEFELLER UNIVERSITY	413	75	0	0	41	2	0	0	13	0	324	68	35	5	0	0
39 LOYOLA UNIV - CHICAGO	412	63	0	0	29	1	0	0	20	2	274	44	36	4	53	12
40 RENSSELAER POLYTECH INST	391	21	205	3	77	4	9	0	56	7	15	3	10	2	19	2
TOTAL, 1ST 40 INSTS.	44458	8107	4521	144	4275	332	931	139	2202	250	27519	6221	1263	333	3747	688
41 BROWN UNIVERSITY	372	48	53	2	68	8	21	3	61	4	87	17	18	3	64	11
42 UNIVERSITY OF NOTRE DAME	364	28	77	1	114	10	6	0	36	2	50	7	20	2	61	6
43 UNIVERSITY OF DAYTON	350	21	122	0	95	6	6	2	63	3	17	4	21	2	26	4
44 TUFTS UNIVERSITY	344	57	40	3	33	2	3	0	15	0	194	36	18	5	41	11
45 RICE UNIVERSITY	331	41	87	5	82	9	25	1	38	1	53	19	11	2	35	4
46 UNIVERSITY OF DENVER	321	74	33	0	47	3	5	3	58	12	36	18	31	9	111	29
47 THOMAS JEFFERSON UNIV	315	51	7	0	4	1	0	0	1	0	277	41	26	9	0	0
48 DARTMOUTH COLLEGE	313	61	18	0	30	2	12	0	29	2	151	46	21	4	52	7
49 HAHNEMANN MED COL & HOSP	308	39	2	0	9	0	0	0	1	0	272	31	21	7	3	1
50 MARQUETTE UNIVERSITY	307	73	49	2	27	3	0	0	27	2	147	57	12	3	45	6
TOTAL, 1ST 50 INSTS.	47783	8600	5009	157	4784	376	1009	148	2531	276	28803	6497	1462	379	4185	767
TOTAL, ALL OTHER INSTS.	32200	6478	2385	44	5044	614	699	56	4733	907	8326	2373	3442	927	7571	1557

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-46. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT PRIVATE UNIVERSITIES AND COLLEGES BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	28450	6713	2175	75	1943	457	387	99	3722	895	12152	2758	2826	1074	5245	1355
1 HARVARD UNIVERSITY	2036	313	8	0	38	2	1	0	12	0	1912	301	17	7	48	3
2 NORTHEASTERN UNIVERSITY	754	161	117	4	112	17	10	0	206	25	119	58	56	14	134	43
3 NEW YORK UNIVERSITY	694	144	6	0	12	4	3	2	20	5	445	61	89	40	119	32
4 HOWARD UNIVERSITY	652	190	41	1	110	35	51	24	4	0	393	119	5	0	48	11
5 NE OHIO UNIVS MED SCHOOL	632	60	0	0	0	0	0	0	0	0	632	60	0	0	0	0
6 CHAPMAN COLLEGE	594	173	0	0	33	4	0	0	51	15	71	29	123	45	316	80
7 GEORGE WASHINGTON UNIV	528	99	119	0	25	5	13	0	72	5	197	45	28	22	74	22
8 PHILA COL OSTEOPATHIC MED	463	9	0	0	0	0	0	0	0	0	463	9	0	0	0	0
9 COLUMBIA UNIV MAIN DIV	461	105	33	0	11	1	9	2	13	1	291	74	2	1	102	26
10 FAIRLEIGH DICKINSON UNIV	454	70	51	2	34	7	2	0	52	15	236	24	28	9	51	13
TOTAL, 1ST 10 INSTS.	7268	1324	375	7	375	75	89	28	430	66	4759	780	348	138	892	230
11 TUFTS UNIVERSITY	429	68	13	1	3	1	0	0	8	3	387	57	4	3	14	3
12 BOSTON UNIVERSITY	424	139	45	2	2	0	1	1	151	19	145	67	1	1	79	49
13 YALE UNIVERSITY	395	137	15	0	26	5	3	0	7	1	272	111	23	14	49	6
14 INTER AM U P R-SAN GERMAN	364	108	6	0	27	4	7	2	74	16	71	25	49	14	130	47
15 UNIV OF PENNSYLVANIA	350	91	34	5	16	0	1	1	14	0	248	73	9	7	28	5
16 UNIV OF SOUTHERN CAL	332	74	20	0	10	1	0	0	5	0	251	60	11	0	35	13
17 DARTMOUTH COLLEGE	307	70	10	0	17	3	7	0	10	1	243	59	6	3	14	4
18 LOYOLA UNIV - CHICAGO	285	62	0	0	11	2	0	0	23	4	196	34	25	12	30	10
19 CUNY MT SINAI SCH OF MED	270	41	3	0	1	0	0	0	0	0	266	41	0	0	0	0
20 STANFORD UNIVERSITY	260	39	95	4	27	3	16	2	34	4	49	14	13	8	26	4
TOTAL, 1ST 20 INSTS.	10684	2153	616	19	515	94	124	34	756	114	6887	1321	489	200	1297	371
21 YESHIVA UNIVERSITY	256	51	0	0	1	0	0	0	4	1	188	28	39	15	24	7
22 PACE UNIVERSITY	252	69	0	0	25	4	2	1	125	29	24	10	40	11	36	14
23 MERCY COLLEGE	252	98	0	0	4	0	2	0	72	30	25	16	69	40	80	12
24 MARQUETTE UNIVERSITY	246	40	7	0	5	4	0	0	11	7	206	27	5	1	12	1
25 CASE WESTERN RESERVE UNIV	242	35	0	0	0	0	0	0	0	0	224	29	10	2	8	4
26 LOMA LINDA UNIVERSITY	237	38	23	0	11	1	3	0	14	2	139	23	15	6	32	6
27 NEW YORK MEDICAL COLLEGE	235	39	0	0	0	0	0	0	0	0	235	39	0	0	0	0
28 NEW YORK INST TECHNOLOGY	226	34	43	2	26	0	0	0	59	17	78	10	9	1	11	4
29 FLORIDA INST OF TECH	219	14	13	0	10	1	7	0	38	6	4	0	15	2	132	5
30 THE UNIV OF HEALTH SCI	215	6	0	0	0	0	0	0	0	0	215	6	0	0	0	0
TOTAL, 1ST 30 INSTS.	13064	2577	702	21	597	104	138	35	1079	206	8225	1509	691	278	1632	424
31 LONG ISLAND UNIVERSITY	206	29	0	0	13	1	6	4	24	1	50	6	12	3	101	14
32 MASS INST OF TECHNOLOGY	201	59	64	9	27	6	10	7	10	2	45	27	6	2	39	6
33 NORTHWESTERN UNIVERSITY	196	22	8	0	6	3	2	2	6	1	144	8	7	1	23	7
34 LAWRENCE INST OF TECH	196	62	4	0	17	5	5	1	31	10	31	12	38	15	70	19
35 AMERICAN UNIVERSITY	176	41	0	0	11	0	0	0	48	6	18	12	12	2	87	21
36 JOHNS HOPKINS UNIVERSITY	161	29	12	1	3	1	1	0	3	0	59	13	0	0	83	14
37 UNIVERSITY OF DETROIT	156	17	7	0	1	0	0	0	6	2	129	15	4	0	9	0
38 JOHN F KENNEDY UNIVERSITY	149	63	0	0	10	5	0	0	1	0	26	9	73	39	39	10
39 WILLIAM RAINEY HARPER COL	148	50	18	0	10	1	0	0	52	12	37	36	8	0	23	1
40 NATIONAL UNIVERSITY	146	23	0	0	1	0	3	0	41	3	13	9	50	6	38	5
TOTAL, 1ST 40 INSTS.	14799	2972	815	31	696	126	165	49	1301	243	8777	1656	901	346	2144	521
41 EMORY UNIVERSITY	146	21	13	0	8	1	1	0	9	1	85	13	10	3	20	3
42 VANDERBILT UNIVERSITY	143	11	4	0	2	0	2	1	3	1	120	2	6	1	6	6
43 ANTIOCH UNIVERSITY	136	59	1	0	2	0	3	1	3	1	4	3	98	44	25	10
44 UNIVERSITY OF NEW HAVEN	133	25	28	1	22	5	0	0	30	6	8	3	9	3	36	7
45 WASHINGTON UNIVERSITY	131	36	31	1	3	3	0	0	1	0	86	28	4	2	6	2
46 CORNELL UNIVERSITY	130	55	13	2	10	6	3	1	3	2	57	19	11	9	33	16
47 BAYLOR COL OF MEDICINE	123	28	0	0	0	0	0	0	0	0	123	28	0	0	0	0
48 UNIVERSITY OF BRIDGEPORT	122	55	15	0	11	4	0	0	12	2	72	45	5	3	7	1
49 PENN COL OF PODIATRIC MED	120	10	0	0	0	0	0	0	0	0	120	10	0	0	0	0
50 HOFSTRA UNIVERSITY	119	34	7	0	13	2	4	1	27	6	15	5	28	11	25	9
TOTAL, 1ST 50 INSTS.	16102	3306	927	35	767	147	178	53	1389	262	9467	1812	1072	422	2302	575
TOTAL, ALL OTHER INSTS.	12348	3407	1248	40	1176	310	209	46	2333	633	2685	946	1754	652	2943	780

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-47. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	188102	33928	21252	724	17251	1414	6208	614	13921	1925	98096	22652	8212	2091	23162	4508
1 HARVARD UNIVERSITY	3956	751	40	1	188	16	54	4	55	6	3444	687	44	18	131	19
2 JOHNS HOPKINS UNIVERSITY	3327	472	955	9	388	19	24	4	200	46	1607	352	30	5	123	37
3 UNIV OF WIS-MADISON	3116	751	309	28	202	9	202	35	190	14	1726	514	163	57	324	94
4 UNIVERSITY OF MINNESOTA	3003	518	197	3	166	8	65	5	147	15	1794	350	112	29	522	108
5 LOUISIANA STATE UNIV	2559	596	149	2	130	3	122	32	148	34	1831	495	37	6	142	24
6 UNIVERSITY OF MICHIGAN	2458	587	336	19	274	32	60	4	112	8	1233	381	158	59	285	84
7 CORNELL UNIVERSITY	2285	407	315	13	203	16	31	3	66	10	1304	266	108	44	258	55
8 TEXAS A & M UNIVERSITY	2279	133	418	7	100	2	78	4	135	11	1078	50	46	9	424	50
9 UNIV OF ILL URBANA	2246	381	387	15	287	29	122	26	183	28	728	136	150	52	389	95
10 UNIVERSITY OF FLORIDA	2205	373	196	2	96	2	12	0	81	7	1652	330	47	12	121	20
TOTAL, 1ST 10 INSTS.	27434	4969	3302	99	2034	136	770	117	1317	179	16397	3561	895	291	2719	586
11 UNIV OF CAL LOS ANGELES	2094	555	188	14	155	19	102	11	75	6	1234	426	76	13	264	66
12 PENNSYLVANIA STATE UNIV	2071	220	624	18	192	12	84	3	179	35	710	108	76	16	206	28
13 UNIVERSITY OF WASHINGTON	1941	390	275	12	126	1	153	23	79	6	1064	291	50	13	194	44
14 YALE UNIVERSITY	1910	450	50	3	149	5	24	1	66	9	1405	386	44	20	172	26
15 MASS INST OF TECHNOLOGY	1896	262	628	38	474	38	107	13	142	11	340	133	20	3	185	26
16 UNIVERSITY OF KENTUCKY	1892	401	159	6	111	15	55	6	157	39	1138	286	65	21	207	28
17 OHIO STATE UNIVERSITY	1884	343	246	7	116	5	42	5	136	11	1042	255	48	9	254	51
18 UNIVERSITY OF UTAH	1784	457	152	10	142	13	55	5	84	7	1186	377	41	5	124	40
19 PURDUE UNIVERSITY	1778	229	457	13	213	12	26	1	178	21	613	138	86	22	205	22
20 COLUMBIA UNIV MAIN DIV	1766	412	111	8	130	10	190	53	39	2	1035	274	16	4	245	61
TOTAL, 1ST 20 INSTS.	46450	8688	6192	228	3842	266	1608	238	2452	326	26164	6235	1417	417	4775	978
21 UNIVERSITY OF PITTSBURGH	1733	489	156	6	163	9	16	0	118	18	1079	403	65	29	136	24
22 MICHIGAN STATE UNIVERSITY	1701	258	121	0	196	13	35	2	141	16	814	157	113	31	281	39
23 UNIV OF TEXAS AT AUSTIN	1671	323	247	27	407	48	176	38	208	29	222	75	112	27	299	79
24 N C STATE UNIV AT RALEIGH	1622	131	291	11	88	7	30	0	140	16	878	64	21	4	174	29
25 UNIVERSITY OF IOWA	1594	308	72	0	96	1	12	0	74	7	1140	265	35	8	165	27
26 RUTGERS THE ST UNIV OF NJ	1564	329	106	4	175	25	52	6	232	31	421	80	126	38	452	145
27 DUKE UNIVERSITY	1563	299	49	0	72	7	22	5	36	3	1231	256	23	4	130	24
28 UNIV OF CAL DAVIS	1562	285	76	6	66	6	18	0	42	5	1205	227	18	4	137	37
29 UNIV OF PENNSYLVANIA	1546	255	85	6	93	6	4	0	85	8	1017	189	25	3	237	43
30 WASHINGTON UNIVERSITY	1530	323	74	0	74	5	0	0	61	13	1238	294	25	5	58	6
TOTAL, 1ST 30 INSTS.	62536	11688	7469	288	5272	393	1973	289	3589	472	35409	8245	1980	570	6844	1431
31 UNIV OF CAL BERKELEY	1504	281	305	24	225	22	41	4	81	7	571	146	52	21	229	57
32 INDIANA UNIV-ALL CAMPUSES	1442	310	46	5	171	18	54	3	128	16	721	203	99	18	223	47
33 UNIVERSITY OF COLORADO	1425	202	142	4	193	16	76	5	85	9	675	122	81	19	173	27
34 UNIVERSITY OF ARIZONA	1392	194	150	1	184	4	103	6	103	8	586	120	79	22	187	33
35 NEW YORK UNIVERSITY	1392	293	25	0	75	6	0	0	116	8	948	220	72	24	156	35
36 UNIVERSITY OF CONNECTICUT	1337	342	139	10	59	4	31	5	72	10	704	202	115	41	217	70
37 UNIV OF CAL SAN FRANCISCO	1332	511	0	0	0	0	0	0	0	0	1332	511	0	0	0	0
38 UNIVERSITY OF CHICAGO	1320	242	45	1	204	15	41	1	62	1	794	197	44	13	130	14
39 CASE WESTERN RESERVE UNIV	1307	219	117	4	80	3	7	0	36	3	1016	195	13	3	38	11
40 IOWA ST U OF SCI & TECH	1300	168	349	37	69	5	16	0	140	18	563	89	24	2	139	17
TOTAL, 1ST 40 INSTS.	76287	14450	8787	374	6532	486	2342	313	4412	552	43319	10250	2559	733	8336	1742
41 UNIV OF SOUTHERN CAL	1274	196	128	2	85	7	14	0	39	1	877	165	38	6	93	15
42 UNIVERSITY OF KANSAS	1272	176	148	1	111	6	50	5	93	7	626	109	61	13	183	35
43 UNIV OF CAL SAN DIEGO	1270	274	21	1	143	15	248	36	60	3	680	194	28	7	90	18
44 UNIV OF MISSOURI COLUMBIA	1240	226	115	3	49	2	22	1	60	9	838	178	39	8	117	25
45 UNIV OF MD COLLEGE PARK	1207	196	190	9	337	45	24	3	139	20	303	75	44	10	170	34
46 UNIV OF NC AT CHAPEL HILL	1206	185	37	1	78	4	20	0	51	3	829	137	42	10	149	30
47 CUNY MT SINAI SCH OF MED	1192	288	27	0	27	2	4	1	19	2	1091	278	4	1	20	4
48 UNIVERSITY OF ROCHESTER	1129	177	42	2	198	3	7	0	54	3	660	143	82	20	86	6
49 UNIVERSITY OF GEORGIA	1124	105	28	1	72	2	58	6	81	13	650	47	67	8	168	28
50 UNIVERSITY OF CINCINNATI	1123	183	132	6	69	1	15	1	68	14	719	143	41	6	79	12
TOTAL, 1ST 50 INSTS.	88324	16456	9655	400	7701	573	2804	366	5076	627	50592	11719	3005	822	9491	1949
TOTAL, ALL OTHER INSTS.	99778	17472	11597	324	9550	841	3404	248	8845	1298	47504	10933	5207	1269	13671	2559

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-48. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT DOCTORATE-GRANTING INSTITUTIONS BY FIELD AND SEX: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL, ALL FIELDS		ENGINEERS		PHYSICAL SCIENTISTS		ENVIRON-MENTAL SCIENTISTS		MATH. AND COMPUTER SCIENTISTS		LIFE SCIENTISTS		PSYCHOLOGISTS		SOCIAL SCIENTISTS	
	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN	TOTAL	WOMEN
TOTAL, ALL INSTS.	43726	10450	4150	249	2372	498	792	206	3536	855	25174	6012	2207	870	5495	1760
1 OHIO STATE UNIVERSITY	2348	465	89	5	47	9	13	1	77	16	1711	260	28	10	383	164
2 HARVARD UNIVERSITY	2036	313	8	0	38	2	1	0	12	0	1912	301	17	7	48	3
3 UNIV OF CAL BERKELEY	811	230	122	15	223	39	51	3	24	5	264	101	24	18	103	49
4 UNIV OF CAL LOS ANGELES	805	286	64	5	59	9	21	2	6	0	546	218	34	18	75	34
5 UNIV OF CAL SAN FRANCISCO	781	266	0	0	0	0	0	0	0	0	781	266	0	0	0	0
6 NORTHEASTERN UNIVERSITY	754	161	117	4	112	17	10	0	206	25	119	58	56	14	134	43
7 NEW YORK UNIVERSITY	694	144	6	0	12	4	3	2	20	5	445	61	89	40	119	32
8 HOWARD UNIVERSITY	652	190	41	1	110	35	51	24	4	0	393	119	5	0	48	11
9 NE OHIO UNIVS MED SCHOOL	632	60	0	0	0	0	0	0	0	0	632	60	0	0	0	0
10 UNIV OF WIS-MADISON	613	269	55	9	26	5	29	8	27	11	353	165	37	27	86	44
TOTAL, 1ST 10 INSTS.	10126	2384	502	39	627	120	179	40	376	62	7156	1609	290	134	996	380
11 UNIVERSITY OF MICHIGAN	606	204	87	11	30	10	7	2	8	5	366	113	47	31	61	32
12 UNIVERSITY OF WASHINGTON	579	197	34	1	29	3	37	6	12	2	389	165	14	7	64	13
13 INDIANA UNIV-ALL CAMPUSES	541	164	53	2	40	12	11	2	36	9	283	96	25	6	93	37
14 WAYNE STATE UNIVERSITY	539	164	56	11	34	6	2	1	60	11	209	63	59	31	119	41
15 UNIVERSITY OF MINNESOTA	531	144	57	4	10	3	5	2	23	1	351	85	11	9	74	40
16 GEORGE WASHINGTON UNIV	528	99	119	0	25	5	13	0	72	5	197	45	28	22	74	22
17 LOUISIANA STATE UNIV	513	126	15	1	4	0	12	7	29	16	436	98	5	1	12	3
18 UNIV OF CAL DAVIS	471	158	40	4	19	3	0	0	9	3	364	127	4	2	35	19
19 PHILA COL OSTEOPATHIC MED	463	9	0	0	0	0	0	0	0	0	463	9	0	0	0	0
20 COLUMBIA UNIV MAIN DIV	461	105	33	0	11	1	9	2	13	1	291	74	2	1	102	26
TOTAL, 1ST 20 INSTS.	15358	3754	996	73	829	163	275	61	638	115	10505	2484	485	244	1630	613
21 FAIRLEIGH DICKINSON UNIV	454	70	51	2	34	7	2	0	52	15	236	24	28	9	51	13
22 WASHINGTON STATE UNIV	433	38	82	2	13	2	5	0	30	3	243	22	6	0	54	9
23 TUFTS UNIVERSITY	429	68	13	1	3	1	0	0	8	3	387	57	4	3	14	3
24 BOSTON UNIVERSITY	424	139	45	2	2	0	1	1	151	19	145	67	1	1	79	49
25 YALE UNIVERSITY	395	137	15	0	26	5	3	0	7	1	272	111	23	14	49	6
26 UNIV OF MD BALT PROF SCH	378	65	0	0	0	0	0	0	1	0	367	60	0	0	10	5
27 PURDUE UNIVERSITY	373	105	100	4	26	4	3	2	94	36	78	46	18	7	54	6
28 UNIV OF PENNSYLVANIA	350	91	34	5	16	0	1	1	14	0	248	73	9	7	28	5
29 UNIVERSITY OF NEW MEXICO	338	108	70	3	23	9	16	1	31	10	159	68	9	4	30	13
30 UNIV OF SOUTHERN CAL	332	74	20	0	10	1	0	0	5	0	251	60	11	0	35	13
TOTAL, 1ST 30 INSTS.	19264	4649	1426	92	982	192	306	67	1031	202	12891	3072	594	289	2034	735
31 SUNY AT BUFFALO	324	47	21	3	7	0	0	0	0	0	285	39	3	2	8	3
32 UNIV OF ILL URBANA	317	115	36	6	24	7	42	15	13	6	112	37	25	13	65	31
33 UNIVERSITY OF IOWA	317	111	9	0	1	0	1	1	6	1	262	101	3	1	35	7
34 UNIVERSITY OF PITTSBURGH	309	59	24	2	13	1	3	0	51	10	185	32	3	1	30	13
35 DARTMOUTH COLLEGE	307	70	10	0	17	3	7	0	10	1	243	59	6	3	14	4
36 UNIV OF CAL SAN DIEGO	295	100	4	0	23	3	34	11	13	0	199	79	9	5	13	2
37 LOYOLA UNIV - CHICAGO	285	62	0	0	11	2	0	0	23	4	196	34	25	12	30	10
38 UNIVERSITY OF KANSAS	282	68	30	1	19	4	7	1	17	6	156	37	14	6	39	13
39 UNIV OF HAWAII-MANOA	280	68	10	4	7	3	9	1	17	1	177	38	6	2	54	19
40 UNIV OF ILL MED CTR CHGO	275	77	0	0	0	0	0	0	0	0	274	77	1	0	0	0
TOTAL, 1ST 40 INSTS.	22255	5426	1570	108	1104	215	409	96	1181	231	14980	3605	689	334	2322	837
41 UNIVERSITY OF KENTUCKY	274	85	30	1	8	3	2	1	33	11	136	37	37	21	28	11
42 U TEX HLTH SCI CTR DALLAS	271	17	0	0	0	0	0	0	3	0	261	16	7	1	0	0
43 CUNY MT SINAI SCH OF MED	270	41	3	0	1	0	0	0	0	0	266	41	0	0	0	0
44 UNIV OREGON HLTH SCI CTR	266	91	0	0	0	0	0	0	0	0	262	91	4	0	0	0
45 STANFORD UNIVERSITY	260	39	95	4	27	3	16	2	34	4	49	14	13	8	26	4
46 UNIVERSITY OF CONNECTICUT	256	98	14	1	4	1	0	0	14	3	156	56	20	12	48	22
47 YESHIVA UNIVERSITY	256	51	0	0	1	0	0	0	4	1	188	28	39	15	24	7
48 PACE UNIVERSITY	252	69	0	0	25	4	2	1	125	29	24	10	40	11	36	14
49 UNIV OF TEXAS AT AUSTIN	249	82	42	5	42	8	3	0	25	8	44	20	34	15	59	26
50 MARQUETTE UNIVERSITY	246	40	7	0	5	4	0	0	11	7	206	27	5	1	12	1
TOTAL, 1ST 50 INSTS.	24855	6039	1761	119	1217	238	432	100	1430	294	16572	3945	888	418	2555	925
TOTAL, ALL OTHER INSTS.	18871	4411	2389	130	1155	260	360	106	2106	561	8602	2067	1319	452	2940	835

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-49. -- FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: JANUARY 1979 - JANUARY 1982

INSTITUTIONAL RANKING	R&D FTE 1/				TOTAL FTE 1/			
	1982	1981	1980	1979	1982	1981	1980	1979
TOTAL, ALL INSTITUTIONS	59,963				298,698			
1 JOHNS HOPKINS UNIVERSITY	2,641I	2,525	2,534	2,390E	3,404I	3,228	3,208	3,208E
2 UNIV OF WIS-MADISON	1,825	1,931	1,899	1,890	3,474	3,525	3,472	3,497
3 YALE UNIVERSITY	1,237	1,135	1,170	922I	2,113	1,943I	2,002I	1,895
4 CORNELL UNIVERSITY	1,075I	1,080I	1,068I	1,089	2,344I	2,401I	2,371I	2,577E
5 UNIVERSITY OF MICHIGAN	956	991	1,001	949	2,733	2,943	2,950	3,080
6 TEXAS A & M UNIVERSITY	946	854	882	869	2,279	2,216	2,168	2,138
7 LOUISIANA STATE UNIV	920	863	880	910	2,682	2,626	2,680	2,558
8 UNIV OF CAL SAN FRANCISCO	913				1,741			
9 WASHINGTON UNIVERSITY	886	800	853	791	1,585	1,541	1,508	1,389
10 HARVARD UNIVERSITY	882	910	837	813	5,382	5,159	4,835	4,779
TOTAL, 1ST 10 INSTS.	12,284				27,740			
11 UNIV OF CAL SAN DIEGO	846				1,436			
12 UNIV OF CAL DAVIS	818				1,813			
13 UNIV OF CAL BERKELEY	808				1,884			
14 UNIVERSITY OF WASHINGTON	770	756	739	781	2,236	2,254	2,267	2,292
15 UNIV OF CAL LOS ANGELES	766E				2,500			
16 MASS INST OF TECHNOLOGY	752I	851I	879I	882	1,996	2,224	2,228	2,247
17 DUKE UNIVERSITY	736	736	555E	966	1,601E	1,601	1,418	1,705
18 UNIVERSITY OF ARIZONA	732	121	747	672	1,457	1,603	1,407	1,463
19 UNIV OF TEXAS AT AUSTIN	694	720	721	707	1,790	1,803	1,793	1,792
20 UNIVERSITY OF CHICAGO	670	629	687	664I	1,333	1,336	1,344	1,329
TOTAL, 1ST 20 INSTS.	19,879				45,789			
21 UNIV OF TEX CANCER CENTER	657	708I	702I	632	865	826I	813I	726
22 COLUMBIA UNIV MAIN DIV	630	661	628I	610I	1,919	1,893	1,802I	1,761I
23 UNIV OF PENNSYLVANIA	613	533	493	386	1,672	1,629	1,333	1,292
24 PENNSYLVANIA STATE UNIV	613	555	511	523	2,171	2,117	2,076	2,100
25 NEW YORK UNIVERSITY	590	603	571	380	1,620I	1,656	1,625	1,520
26 UNIV OF ILL URBANA	580	580	450	415	1,313E	1,313	1,140	1,088
27 UNIV OF MISSOURI COLUMBIA	578	384	326	398	1,281	1,295	1,140	1,165
28 UNIVERSITY OF MINNESOTA	571	611	557	623	3,012	3,114	3,068	3,034
29 HOWARD UNIVERSITY	561I	555I	518I	519E	1,129I	1,116I	1,038I	1,039E
30 U TEX HLTH SCI CTR S ANTO	549	482	471I	451	971	841	852I	815
TOTAL, 1ST 30 INSTS.	25,823				51,743			
31 STANFORD UNIVERSITY	547	545	545	1,095	1,095	1,119	1,119	1,795
32 UNIVERSITY OF GEORGIA	534	512	504	505	1,146	1,102	1,076	1,090
33 GEORGIA INSTITUTE OF TECH	524	506	670	423	1,103E	1,124	1,214	816
34 OREGON STATE UNIVERSITY	520	611	570	570	1,100	1,105	1,072	1,072
35 MICHIGAN STATE UNIVERSITY	519	508	496	465	1,748	1,740	1,725	1,687
36 UNIVERSITY OF ROCHESTER	518	513	419	614	1,147E	1,147	1,088	1,044
37 UNIVERSITY OF IOWA	475	286	274	191	1,781	1,791	1,727	1,622
38 UNIV OF NEBRASKA-LINCOLN	463	450	445	465	905	887	890	961
39 UNIVERSITY OF COLORADO	460	394	415	298I	1,491	1,445	1,503	1,291
40 CASE WESTERN RESERVE UNIV	441	397	394	493	1,393	1,351	1,380	1,367
TOTAL, 1ST 40 INSTS.	30,827				74,653			
41 UNIV OF CAL RIVERSIDE	427				666			
42 NEW MEXICO STATE UNIV	425	455	326	326E	1,110	1,096	828	828E
43 SUNY AT STONY BROOK	412	343	301	208	1,090	994	922	781
44 N C STATE UNIV AT RALEIGH	411	409	269	263	1,670	1,622	1,620	1,583
45 CUNY MT SINAI SCH OF MED	409I	411I	398I	379I	1,266I	1,260I	1,191I	1,131I
46 UNIVERSITY OF CONNECTICUT	403	375	392	337	1,452	1,416	1,350	1,247
47 KANS ST U - AG & APP SCI	395	397	371	275	1,145	1,063	1,036	978
48 ROCKEFELLER UNIVERSITY	382	369	363	351	423	408	399	388
49 IOWA ST U OF SCI & TECH	380	373	362	419	1,376	1,544	1,550	1,596
50 NORTHWESTERN UNIVERSITY	374E	305	291	219	1,206	1,220	911	775
TOTAL, 1ST 50 INSTS.	34,849				86,061			

SEE FOOTNOTES AT END OF TABLE.

TABLE B-49. — FULL-TIME-EQUIVALENT SCIENTISTS AND ENGINEERS EMPLOYED IN RESEARCH AND DEVELOPMENT AT UNIVERSITIES AND COLLEGES: - CONTINUED

INSTITUTIONAL RANKING	R&D FTE 1/				TOTAL FTE 1/			
	1982	1981	1980	1979	1982	1981	1980	1979
51 YESHIVA UNIVERSITY	374	374	352	331	988	988	958	935
52 UNIVERSITY OF NEW MEXICO	365	392	373	299	1,092	1,033	1,023	880
53 RUTGERS THE ST UNIV OF NJ	365	369	312	328	1,574	1,539	1,581	1,532
54 CARNEGIE-MELLON UNIV	360I	359I	343	302	574I	572I	544	536
55 UNIVERSITY OF UTAH	359I	354I	358I	358I	1,872	1,801	1,486E	1,486
56 CALIFORNIA INST OF TECH	352	368	359	359E	537	564	556	556E
57 UNIVERSITY OF MIAMI	350	355E	361	361	1,111	1,098	1,085	1,085
58 UNIVERSITY OF FLORIDA	349	337	364	352	2,260	2,144	2,120	2,056
59 UNIVERSITY OF KANSAS	348I	355I	355I	340I	1,427I	1,410I	1,385I	1,323
60 UNIV OF MD COLLEGE PARK	344	295	281	157	1,320	1,257	1,200	1,335
TOTAL, 1ST 60 INSTS.	38,417				98,817			
61 UNIV OF HAWAII-MANOA	342	347	342	345	1,145	1,118	1,093	1,117
62 COLORADO STATE UNIVERSITY	338	360	378	372	1,039	1,061	1,063	695
63 SUNY AT BUFFALO	333I	336I	339I	340E	1,003I	990I	972E	972E
64 INDIANA UNIV-ALL CAMPUSES	310	311I	311I	279	1,646I	1,634I	1,631I	1,366
65 UNIVERSITY OF VIRGINIA	304	145	111	218I	1,065I	867	906	859I
66 UNIV OREGON HLTH SCI CTR	302I	301	209	230	610I	602	672	597
67 VA POLYTECH INST & ST U	302	249	290	363	1,092	1,109	1,102	1,033
68 UNIVERSITY OF KENTUCKY	301	296	355	297	1,984	2,005	2,022	1,648
69 VANDERBILT UNIVERSITY	296	343	207	133	921	783	640	595
70 U TEX HLTH SCI CTR DALLAS	296	301	287	288	865	855	810	738
TOTAL, 1ST 70 INSTS.	41,545				110,191			
71 PURDUE UNIVERSITY	284	303	281	281	1,921	1,848	1,819	1,832
72 EMORY UNIVERSITY	277I	281I	271I	252I	837I	833I	788I	738I
73 UNIV OF ILL MED CTR CHGO	274	222	278	258	838	784	1,187	1,108
74 OHIO STATE UNIVERSITY	274	651I	688	558	2,182	3,231I	3,091	2,981
75 BAYLOR COL OF MEDICINE	268	359	351	249I	794E	784	766	684I
76 UNIV ALABAMA BIRMINGHAM	267I	265	266	252	1,088	1,131	1,065	1,030
77 UNIV OF CAL IRVINE	248				894			
78 GEORGETOWN UNIVERSITY	246	226	220	283	869	850	822	641
79 TEMPLE UNIVERSITY	243I	274I	278I	259I	1,271I	1,388I	1,406I	1,222I
80 MISSISSIPPI STATE UNIV	241	290	261	259	712	651	713	658
TOTAL, 1ST 80 INSTS.	44,172				121,600			
81 AUBURN UNIVERSITY	227	221	222	217	979	950	973	936
82 BOSTON UNIVERSITY	225	265	475	475E	1,020	1,010	1,026	1,026E
83 PRINCETON UNIVERSITY	221	242	227	406	532	558	537	577
84 UNIVERSITY OF DELAWARE	220	218	217E	206	576	566	551	531
85 RICE UNIVERSITY	218	79	235	142	350	291	390	233
86 WAYNE STATE UNIVERSITY	214	226	210	208	1,293	1,293	1,221	1,133
87 UNIV OF SOUTHERN CAL	214	214	214	445E	1,368	1,368	1,368	1,578
88 WOODS HOLE OCNGRPHIC INST	210	220	24	229	210	220	219	239
89 VIRGINIA COMMONWLTH UNIV	208I	242	52	66	862	1,052	846	835
90 WASHINGTON STATE UNIV	208I	216	309I	296I	710I	675	1,219I	1,161I
TOTAL, 1ST 90 INSTS.	46,342				129,501			
91 CLEMSON UNIVERSITY	208	208	176	176	888	818	847	847
92 UNIVERSITY OF PITTSBURGH	206	196I	200	200	1,887E	1,821	1,749	1,749
93 LOMA LINDA UNIVERSITY	202I	203I	194I	189I	614I	608I	569I	556I
94 OKLAHOMA STATE UNIVERSITY	201	188	221I	211I	740	684	734I	701
95 TULANE UNIVERSITY	190	147	158	145	548	486	537	548
96 UNIV OF NC AT CHAPEL HILL	181	163	136	215	1,222	1,207	1,205	1,286
97 TUFTS UNIVERSITY	180	152	46	105	482	428	382	335
98 GEORGE WASHINGTON UNIV	178	212	231	214	824	854	867	776
99 UTAH STATE UNIVERSITY	177	174	177	170	432	436	437	427
100 NORTH DAKOTA STATE UNIV	177	163	162	107I	484	439	416	374I
TOTAL, 1ST 100 INSTS.	48,245				137,625			
TOTAL, ALL OTHER INSTS.	11,718				161,073			

1/ NATIONAL AND SUBGROUP TOTALS AND UNIVERSITY OF CALIFORNIA SYSTEM (UC) DATA FOR YEARS PRIOR TO 1982 HAVE BEEN SUPPRESSED BECAUSE OF ERRORS FOUND BY UC IN THEIR PROCEDURES USED TO COMPILE FTE DATA FOR 1981 AND EARLIER YEARS, RESULTING IN A SIGNIFICANT UNDERCOUNT.

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-50. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION, CONTROL, AND STATUS: JANUARY 1982

DIVISION AND STATE	PUBLIC			PRIVATE		
	TOTAL	FULL TIME	PART TIME	TOTAL	FULL TIME	PART TIME
TOTAL, ALL INSTITUTIONS	240,338	187,080	53,258	108,433	79,983	28,450
NEW ENGLAND	8,845	7,485	1,360	20,593	14,379	6,214
CONNECTICUT	2,722	2,164	558	3,845	2,724	1,121
MAINE	790	609	181	270	220	50
MASSACHUSETTS	3,374	2,896	478	14,796	10,231	4,565
NEW HAMPSHIRE	476	457	19	807	448	359
RHODE ISLAND	701	663	38	649	558	91
VERMONT	782	696	86	226	198	28
MIDDLE ATLANTIC	30,992	22,576	8,416	30,571	22,593	7,978
NEW JERSEY	5,906	4,388	1,518	2,385	1,456	929
NEW YORK	15,512	10,868	4,644	19,859	14,912	4,947
PENNSYLVANIA	9,574	7,320	2,254	8,327	6,225	2,102
EAST NORTH CENTRAL	43,878	32,903	10,975	15,472	11,026	4,446
ILLINOIS	10,134	7,885	2,249	6,604	5,067	1,537
INDIANA	4,623	3,688	935	1,446	1,173	273
MICHIGAN	10,590	8,250	2,340	1,456	889	567
OHIO	11,185	6,830	4,355	4,549	2,938	1,611
WISCONSIN	7,346	6,250	1,096	1,417	959	458
WEST NORTH CENTRAL	20,144	16,995	3,149	6,011	4,726	1,285
IOWA	3,939	3,402	537	883	704	179
KANSAS	3,904	3,180	724	319	260	59
MINNESOTA	4,669	3,949	720	802	606	196
MISSOURI	4,016	3,271	745	3,267	2,615	652
NEBRASKA	1,728	1,454	274	552	408	144
NORTH DAKOTA	1,032	961	71	31	20	11
SOUTH DAKOTA	856	778	78	157	113	44
SOUTH ATLANTIC	36,373	29,695	6,678	16,812	13,496	3,316
DELAWARE	768	749	19	32	15	17
DISTRICT OF COLUMBIA	218	153	65	4,334	2,825	1,509
FLORIDA	7,663	5,918	1,745	2,191	1,674	517
GEORGIA	4,595	3,989	606	1,698	1,321	377
MARYLAND	5,388	3,827	1,561	3,955	3,606	349
NORTH CAROLINA	5,856	5,135	721	2,913	2,677	236
SOUTH CAROLINA	3,909	3,310	599	431	373	58
VIRGINIA	6,010	4,970	1,040	948	780	168
WEST VIRGINIA	1,966	1,644	322	310	225	85
EAST SOUTH CENTRAL	14,589	12,122	2,467	2,913	2,446	467
ALABAMA	4,367	3,502	865	469	401	68
KENTUCKY	3,787	3,235	552	180	306	74
MISSISSIPPI	2,323	2,081	242	181	150	31
TENNESSEE	4,112	3,304	808	1,883	1,589	294
WEST SOUTH CENTRAL	25,764	21,532	4,232	4,586	3,714	872
ARKANSAS	2,139	1,926	213	152	135	17
LOUISIANA	4,699	3,972	727	865	734	131
OKLAHOMA	3,000	2,465	535	540	418	122
TEXAS	15,926	13,169	2,757	3,029	2,427	602
MOUNTAIN	16,617	14,220	2,397	1,576	1,301	275
ARIZONA	3,216	2,723	493	41	33	8
COLORADO	4,319	3,754	565	560	455	105
IDAHO	1,044	886	158	131	108	23
MONTANA	1,040	877	163	92	62	30
NEVADA	616	459	157	0	0	0
NEW MEXICO	2,726	2,278	448	71	45	26
UTAH	2,820	2,518	302	681	598	83
WYOMING	836	725	111	0	0	0
PACIFIC	40,167	27,173	12,994	8,986	5,884	3,102
ALASKA	343	306	37	16	14	2
CALIFORNIA	29,475	19,347	10,128	7,964	5,087	2,877
HAWAII	1,350	1,053	297	93	28	65
OREGON	3,946	2,836	1,110	410	356	54
WASHINGTON	5,053	3,631	1,422	503	399	104
OUTLYING AREAS	2,969	2,379	590	913	418	495

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-51. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION AND FIELD OF EMPLOYMENT: JANUARY 1982

DIVISION AND STATE	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRON-MENTAL SCIENTISTS	MATH. & COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL-OGISTS	SOCIAL SCIENTISTS
TOTAL, ALL INSTITUTIONS	348,771	36,419	34,377	10,059	42,139	146,236	23,664	55,877
NEW ENGLAND	29,438	3,058	2,992	821	3,040	13,588	1,739	4,200
CONNECTICUT	6,567	614	574	107	730	3,000	478	1,064
MAINE	1,060	87	121	76	157	254	102	263
MASSACHUSETTS	18,170	1,980	1,898	483	1,694	8,940	912	2,263
NEW HAMPSHIRE	1,283	127	132	62	144	579	63	176
RHODE ISLAND	1,350	168	172	65	205	331	117	292
VERMONT	1,008	82	95	28	110	484	67	142
MIDDLE ATLANTIC	61,563	5,920	6,476	1,355	8,314	23,586	5,044	10,868
NEW JERSEY	8,291	825	914	201	1,343	2,415	783	1,810
NEW YORK	35,371	3,108	3,596	828	4,614	14,264	2,900	6,061
PENNSYLVANIA	17,901	1,987	1,966	326	2,357	6,907	1,361	2,997
EAST NORTH CENTRAL	59,350	6,349	5,966	1,570	7,199	24,004	4,609	9,853
ILLINOIS	16,738	1,383	1,785	450	2,324	6,470	1,403	2,923
INDIANA	6,069	855	807	152	757	2,056	427	1,015
MICHIGAN	12,046	1,328	1,314	221	1,462	4,561	931	2,229
OHIO	15,734	1,836	1,255	296	1,706	7,254	1,035	2,352
WISCONSIN	8,763	947	805	451	950	3,663	613	1,334
WEST NORTH CENTRAL	26,155	2,301	2,286	578	2,727	12,658	1,589	4,016
IOWA	4,822	515	389	57	483	2,436	239	703
KANSAS	4,223	443	397	91	485	1,814	302	691
MINNESOTA	5,471	288	476	148	570	2,456	380	1,153
MISSOURI	7,283	570	613	129	750	3,934	417	870
NEBRASKA	2,280	189	233	68	220	1,116	146	308
NORTH DAKOTA	1,063	155	93	64	133	408	59	151
SOUTH DAKOTA	1,013	141	85	21	86	494	46	140
SOUTH ATLANTIC	53,185	6,007	5,269	1,442	6,838	22,067	3,056	8,506
DELAWARE	800	143	113	84	97	191	32	140
DISTRICT OF COLUMBIA	4,552	379	461	124	361	2,373	162	692
FLORIDA	9,854	882	828	372	1,536	3,890	662	1,684
GEORGIA	6,293	912	650	165	823	2,395	387	961
MARYLAND	9,343	1,473	1,289	108	1,093	3,645	464	1,271
NORTH CAROLINA	8,769	705	707	184	998	4,331	490	1,354
SOUTH CAROLINA	4,340	439	381	68	598	1,987	241	626
VIRGINIA	6,958	846	670	310	1,076	2,491	505	1,060
WEST VIRGINIA	2,276	228	170	27	256	764	113	718
EAST SOUTH CENTRAL	17,502	1,731	1,508	292	2,257	8,087	1,117	2,510
ALABAMA	4,836	509	440	55	690	2,202	294	646
KENTUCKY	4,167	289	340	116	493	2,052	280	597
MISSISSIPPI	2,504	190	229	24	300	1,138	131	492
TENNESSEE	5,995	743	499	97	774	2,695	412	775
WEST SOUTH CENTRAL	30,350	2,776	2,553	915	3,506	14,916	1,604	4,080
ARKANSAS	2,291	132	177	42	187	1,392	96	265
LOUISIANA	5,564	485	409	197	622	3,087	188	576
OKLAHOMA	3,540	355	297	75	436	1,640	183	554
TEXAS	18,955	1,804	1,670	601	2,261	8,797	1,137	2,685
MOUNTAIN	18,193	2,564	1,840	942	2,161	6,743	1,151	2,792
ARIZONA	3,257	502	364	196	413	1,019	213	550
COLORADO	4,879	710	563	232	582	1,569	371	852
IDAHO	1,175	110	105	50	131	543	73	163
MONTANA	1,132	132	129	66	166	383	55	201
NEVADA	616	63	65	80	79	187	24	118
NEW MEXICO	2,797	489	255	115	354	1,004	212	368
UTAH	3,501	457	286	138	314	1,746	154	406
WYOMING	836	101	73	65	122	292	49	134
PACIFIC	49,153	5,477	5,076	2,081	5,622	19,239	3,623	8,035
ALASKA	359	40	28	79	30	88	22	72
CALIFORNIA	37,439	4,401	3,997	1,368	4,321	14,238	2,987	6,127
HAWAII	1,443	68	104	110	107	717	56	281
OREGON	4,356	306	439	217	537	1,939	248	670
WASHINGTON	5,556	662	508	307	627	2,257	310	885
OUTLYING AREAS	3,882	236	411	63	475	1,348	332	1,017

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-52. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION AND FIELD OF EMPLOYMENT: JANUARY 1982

DIVISION AND STATE	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRON-MENTAL SCIENTISTS	MATH. & COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL-OGISTS	SOCIAL SCIENTISTS
TOTAL, ALL INSTITUTIONS ...	267,063	28,049	28,505	8,568	28,322	115,214	16,767	41,638
NEW ENGLAND	21,864	2,431	2,486	718	1,944	9,849	1,286	3,150
CONNECTICUT	4,888	396	432	93	422	2,431	339	775
MAINE	829	83	105	61	97	219	69	195
MASSACHUSETTS	13,127	1,618	1,597	431	1,056	6,129	663	1,633
NEW HAMPSHIRE	905	110	110	49	108	324	53	151
RHODE ISLAND	1,221	148	157	62	177	304	102	271
VERMONT	894	76	85	22	84	442	60	125
MIDDLE ATLANTIC	45,169	4,445	5,236	1,172	5,100	18,082	3,382	7,752
NEW JERSEY	5,844	566	732	177	779	1,761	531	1,298
NEW YORK	25,780	2,340	2,939	698	2,735	11,027	1,882	4,159
PENNSYLVANIA	13,545	1,539	1,565	297	1,586	5,294	969	2,295
EAST NORTH CENTRAL	43,929	4,896	5,076	1,334	4,781	17,504	3,180	7,158
ILLINOIS	12,952	1,141	1,532	369	1,483	5,087	1,063	2,277
INDIANA	4,861	685	702	133	562	1,636	338	805
MICHIGAN	9,139	1,051	1,108	200	964	3,599	639	1,578
OHIO	9,768	1,205	1,019	241	1,021	4,208	641	1,433
WISCONSIN	7,209	814	715	391	751	2,974	499	1,065
WEST NORTH CENTRAL	21,721	1,947	2,022	525	2,143	10,484	1,276	3,324
IOWA	4,106	463	355	52	415	2,028	207	586
KANSAS	3,440	344	338	80	363	1,526	222	567
MINNESOTA	4,555	216	428	136	453	2,047	310	965
MISSOURI	5,886	456	526	115	537	3,264	326	682
NEBRASKA	1,862	178	212	63	178	842	121	268
NORTH DAKOTA	981	153	88	61	124	371	50	134
SOUTH DAKOTA	891	137	75	18	73	426	40	122
SOUTH ATLANTIC	43,191	4,874	4,473	1,254	4,862	19,010	2,267	6,451
DELAWARE	764	140	113	77	87	180	30	137
DISTRICT OF COLUMBIA	2,978	174	286	59	210	1,718	106	425
FLORIDA	7,592	657	673	330	1,002	3,323	455	1,152
GEORGIA	5,310	809	573	155	640	2,035	299	799
MARYLAND	7,433	1,337	1,122	97	752	3,029	309	787
NORTH CAROLINA	7,812	592	629	167	795	4,096	398	1,135
SOUTH CAROLINA	3,683	334	348	66	464	1,741	195	535
VIRGINIA	5,750	668	585	277	740	2,248	390	842
WEST VIRGINIA	1,869	163	144	26	172	640	85	639
EAST SOUTH CENTRAL	14,568	1,388	1,303	261	1,677	7,000	849	2,090
ALABAMA	3,903	404	345	48	473	1,945	195	493
KENTUCKY	3,541	235	307	108	381	1,783	210	517
MISSISSIPPI	2,231	180	218	20	267	1,005	110	431
TENNESSEE	4,893	569	433	85	556	2,267	334	649
WEST SOUTH CENTRAL	25,246	2,264	2,269	790	2,637	12,692	1,243	3,351
ARKANSAS	2,061	123	157	34	154	1,268	86	239
LOUISIANA	4,706	403	388	172	518	2,566	155	504
OKLAHOMA	2,883	314	260	62	304	1,361	142	440
TEXAS	15,596	1,424	1,464	522	1,661	7,497	860	2,168
MOUNTAIN	15,521	2,158	1,629	831	1,748	5,900	939	2,316
ARIZONA	2,756	417	329	174	346	882	170	438
COLORADO	4,209	603	514	209	472	1,385	299	727
IDAHO	994	98	87	40	90	489	51	139
MONTANA	939	109	100	62	115	342	43	168
NEVADA	459	49	54	63	48	135	24	86
NEW MEXICO	2,323	396	220	96	292	826	184	309
UTAH	3,116	393	261	127	289	1,578	132	336
WYOMING	725	93	64	60	96	263	36	113
PACIFIC	33,057	3,462	3,714	1,633	3,137	13,660	2,140	5,311
ALASKA	320	37	24	77	25	81	14	62
CALIFORNIA	24,434	2,676	2,828	1,028	2,264	10,075	1,671	3,892
HAWAII	1,081	58	95	100	62	534	37	195
OREGON	3,192	229	369	188	344	1,433	152	477
WASHINGTON	4,030	462	398	240	442	1,537	266	685
OUTLYING AREAS	2,797	184	297	50	293	1,033	205	735

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-53. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION AND FIELD OF EMPLOYMENT: JANUARY 1982

DIVISION AND STATE	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRON-MENTAL SCIENTISTS	MATH. & COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL-OGISTS	SOCIAL SCIENTISTS
TOTAL, ALL INSTITUTIONS	81,708	8,370	5,872	1,491	13,817	31,022	6,897	14,239
NEW ENGLAND	7,574	627	506	103	1,096	3,739	453	1,050
CONNECTICUT	1,679	218	142	14	308	569	139	289
MAINE	231	4	16	15	60	35	33	68
MASSACHUSETTS	5,043	362	301	52	638	2,811	249	630
NEW HAMPSHIRE	378	17	22	13	36	255	10	25
RHODE ISLAND	129	20	15	3	28	27	15	21
VERMONT	114	6	10	6	26	42	7	17
MIDDLE ATLANTIC	16,394	1,475	1,240	183	3,214	5,504	1,662	3,116
NEW JERSEY	2,447	259	182	24	564	654	252	512
NEW YORK	9,591	768	657	130	1,879	3,237	1,018	1,902
PENNSYLVANIA	4,356	448	401	29	771	1,613	392	702
EAST NORTH CENTRAL	15,421	1,453	890	236	2,418	6,500	1,229	2,695
ILLINOIS	3,786	242	253	81	841	1,383	340	646
INDIANA	1,208	170	105	19	195	420	89	210
MICHIGAN	2,907	277	206	21	498	962	292	651
OHIO	5,966	631	236	55	685	3,046	394	919
WISCONSIN	1,554	133	90	60	199	689	114	269
WEST NORTH CENTRAL	4,434	354	264	53	584	2,174	313	692
IOWA	716	52	34	5	68	408	32	117
KANSAS	783	99	59	11	122	288	80	124
MINNESOTA	916	72	48	12	117	409	70	188
MISSOURI	1,397	114	87	14	213	690	91	188
NEBRASKA	418	11	21	5	42	274	25	40
NORTH DAKOTA	82	2	5	3	9	37	9	17
SOUTH DAKOTA	122	4	10	3	13	68	6	18
SOUTH ATLANTIC	9,994	1,133	796	188	1,976	3,057	789	2,055
DELAWARE	36	3	0	7	10	11	2	3
DISTRICT OF COLUMBIA	1,574	205	175	65	151	155	56	267
FLORIDA	2,262	225	155	42	534	567	207	532
GEORGIA	983	103	77	10	183	360	88	162
MARYLAND	1,910	136	167	11	341	616	155	484
NORTH CAROLINA	957	113	78	17	203	235	92	219
SOUTH CAROLINA	657	105	33	2	134	246	46	91
VIRGINIA	1,208	178	85	33	336	243	115	218
WEST VIRGINIA	407	65	26	1	84	124	28	79
EAST SOUTH CENTRAL	2,934	343	205	31	580	1,087	268	420
ALABAMA	933	105	95	7	217	257	99	153
KENTUCKY	626	54	33	8	112	269	70	80
MISSISSIPPI	273	10	11	4	33	133	21	61
TENNESSEE	1,102	174	66	12	218	428	78	126
WEST SOUTH CENTRAL	5,104	512	284	125	869	2,224	361	729
ARKANSAS	230	9	20	8	33	124	10	26
LOUISIANA	858	82	21	25	104	521	33	72
OKLAHOMA	657	41	37	13	132	279	41	114
TEXAS	3,359	380	206	79	600	1,300	277	517
MOUNTAIN	2,672	406	211	111	413	843	212	476
ARIZONA	501	85	35	22	67	137	43	112
COLORADO	670	107	49	23	110	184	72	125
IDAHO	181	12	18	10	41	54	22	24
MONTANA	193	23	29	4	51	41	12	33
NEVADA	157	14	11	17	31	52	0	32
NEW MEXICO	474	93	35	19	62	178	28	59
UTAH	385	64	25	11	25	168	22	70
WYOMING	111	8	9	5	26	29	13	21
PACIFIC	16,096	2,015	1,362	448	2,485	5,579	1,483	2,724
ALASKA	39	3	4	2	5	7	8	10
CALIFORNIA	13,005	1,725	1,169	340	2,057	4,163	1,316	2,235
HAWAII	362	10	9	10	45	183	19	86
OREGON	1,164	77	70	29	193	506	96	193
WASHINGTON	1,526	200	110	67	185	720	44	200
OUTLYING AREAS	1,085	52	114	13	182	315	127	282

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-54. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY GEOGRAPHIC DISTRIBUTION, STATUS, AND SEX: JANUARY 1982

DIVISION AND STATE	FULL TIME					PART TIME				
	TOTAL	MEN		WOMEN		TOTAL	MEN		WOMEN	
		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
TOTAL, ALL INSTITUTIONS	267,063	216,630	81.1%	50,433	18.9%	81,708	60,727	74.3%	20,981	25.7%
NEW ENGLAND	21,864	17,559	80.3	4,305	19.7	7,574	5,698	75.2	1,876	24.8
CONNECTICUT	4,888	3,751	76.7	1,137	23.3	1,679	1,182	70.4	497	29.6
MAINE	829	733	88.4	96	11.6	231	160	69.3	71	30.7
MASSACHUSETTS	13,127	10,557	80.4	2,570	19.6	5,043	3,919	77.7	1,124	22.3
NEW HAMPSHIRE	905	753	83.2	152	16.8	378	275	72.8	103	27.2
RHODE ISLAND	1,221	999	81.8	222	18.2	129	87	67.4	42	32.6
VERMONT	894	766	85.7	128	14.3	114	75	65.8	39	34.2
MIDDLE ATLANTIC	45,169	36,328	80.4	8,841	19.6	16,394	12,280	74.9	4,114	25.1
NEW JERSEY	5,844	4,568	78.2	1,276	21.8	2,447	1,853	75.7	594	24.3
NEW YORK	25,780	20,695	80.3	5,085	19.7	9,591	7,100	74.0	2,491	26.0
PENNSYLVANIA	13,545	11,065	81.7	2,480	18.3	4,356	3,327	76.4	1,029	23.6
EAST NORTH CENTRAL	43,929	35,444	80.7	8,485	19.3	15,421	11,412	74.0	4,009	26.0
ILLINOIS	12,952	10,298	79.5	2,654	20.5	3,786	2,790	73.7	996	26.3
INDIANA	4,861	4,106	84.5	755	15.5	1,208	860	71.2	348	28.8
MICHIGAN	9,139	7,271	79.6	1,868	20.4	2,907	2,025	69.7	882	30.3
OHIO	9,768	8,070	82.6	1,698	17.4	5,966	4,719	79.1	1,247	20.9
WISCONSIN	7,209	5,699	79.1	1,510	20.9	1,554	1,018	65.5	536	34.5
WEST NORTH CENTRAL	21,721	18,141	83.5	3,580	16.5	4,434	3,160	71.3	1,274	28.7
IOWA	4,106	3,421	83.3	685	16.7	716	485	67.7	231	32.3
KANSAS	3,440	2,902	84.4	538	15.6	783	536	68.5	247	31.5
MINNESOTA	4,555	3,791	83.2	764	16.8	916	646	70.5	270	29.5
MISSOURI	5,886	4,735	80.4	1,151	19.6	1,397	1,056	75.6	341	24.4
NEBRASKA	1,862	1,654	88.8	208	11.2	418	308	73.7	110	26.3
NORTH DAKOTA	981	871	88.8	110	11.2	82	54	65.9	28	34.1
SOUTH DAKOTA	891	767	86.1	124	13.9	122	75	61.5	47	38.5
SOUTH ATLANTIC	43,191	35,013	81.1	8,178	18.9	9,994	7,533	75.4	2,461	24.6
DELAWARE	764	602	78.8	162	21.2	36	20	55.6	16	44.4
DISTRICT OF COLUMBIA	2,978	2,263	76.0	715	24.0	1,574	1,194	75.9	380	24.1
FLORIDA	7,592	6,154	81.1	1,438	18.9	2,262	1,771	78.3	491	21.7
GEORGIA	5,310	4,413	83.1	897	16.9	983	770	78.3	213	21.7
MARYLAND	7,433	6,034	81.2	1,399	18.8	1,910	1,457	76.3	453	23.7
NORTH CAROLINA	7,812	6,455	82.6	1,357	17.4	957	633	66.1	324	33.9
SOUTH CAROLINA	3,683	2,867	77.8	816	22.2	657	502	76.4	155	23.6
VIRGINIA	5,750	4,735	82.3	1,015	17.7	1,208	881	72.9	327	27.1
WEST VIRGINIA	1,869	1,490	79.7	379	20.3	407	305	74.9	102	25.1
EAST SOUTH CENTRAL	14,568	11,877	81.5	2,691	18.5	2,934	2,251	76.7	683	23.3
ALABAMA	3,903	3,263	83.6	640	16.4	933	711	76.2	222	23.8
KENTUCKY	3,541	2,808	79.3	733	20.7	626	457	73.0	169	27.0
MISSISSIPPI	2,231	1,801	80.7	430	19.3	273	229	83.9	44	16.1
TENNESSEE	4,893	4,005	81.9	888	18.1	1,102	854	77.5	248	22.5
WEST SOUTH CENTRAL	25,246	20,674	81.9	4,572	18.1	5,104	3,982	78.0	1,122	22.0
ARKANSAS	2,061	1,747	84.8	314	15.2	230	169	73.5	61	26.5
LOUISIANA	4,706	3,718	79.0	988	21.0	858	648	75.5	210	24.5
OKLAHOMA	2,883	2,500	86.7	383	13.3	657	526	80.1	131	19.9
TEXAS	15,596	12,709	81.5	2,887	18.5	3,359	2,639	78.6	720	21.4
MOUNTAIN	15,521	12,994	83.7	2,527	16.3	2,672	1,945	72.8	727	27.2
ARIZONA	2,756	2,326	84.4	430	15.6	501	390	77.8	111	22.2
COLORADO	4,209	3,643	86.6	566	13.4	670	494	73.7	176	26.3
IDAHO	994	885	89.0	109	11.0	181	118	65.2	63	34.8
MONTANA	939	786	83.7	153	16.3	193	136	70.5	57	29.5
NEVADA	459	406	88.5	53	11.5	157	134	85.4	23	14.6
NEW MEXICO	2,323	1,840	79.2	483	20.8	474	314	66.2	160	33.8
UTAH	3,116	2,491	79.9	625	20.1	385	277	71.9	108	28.1
WYOMING	725	617	85.1	108	14.9	111	82	73.9	29	26.1
PACIFIC	33,057	26,956	81.5	6,101	18.5	16,096	11,726	72.9	4,370	27.1
ALASKA	320	277	86.6	43	13.4	39	28	71.8	11	28.2
CALIFORNIA	24,434	19,886	81.4	4,548	18.6	13,005	9,541	73.4	3,464	26.6
HAWAII	1,081	862	79.7	219	20.3	362	272	75.1	90	24.9
OREGON	3,192	2,661	83.4	531	16.6	1,164	762	65.5	402	34.5
WASHINGTON	4,030	3,270	81.1	760	18.9	1,526	1,123	73.6	403	26.4
OUTLYING AREAS	2,797	1,644	58.8	1,153	41.2	1,085	740	68.2	345	31.8

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-55. -- SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES, BY TYPE OF INSTITUTION, STATUS, AND FIELD OF EMPLOYMENT: JANUARY 1982

TYPE OF INSTITUTION AND STATUS	TOTAL	ENGINEERS	PHYSICAL SCIENTISTS	ENVIRON-MENTAL SCIENTISTS	MATH. AND COMPUTER SCIENTISTS	LIFE SCIENTISTS	PSYCHOL-OGISTS	SOCIAL SCIENTISTS
ALL INSTITUTIONS	348,771	36,419	34,377	10,059	42,139	146,236	23,664	55,877
FULL TIME	267,063	28,049	28,505	8,568	28,322	115,214	16,767	41,638
PART TIME	81,708	8,370	5,872	1,491	13,817	31,022	6,897	14,239
INSTITUTIONS GRANTING:								
DOCTORATE IN S&E	231,828	25,402	19,623	7,000	17,457	123,270	10,419	28,657
FULL TIME	188,102	21,252	17,251	6,208	13,921	98,096	8,212	23,162
PART TIME	43,726	4,150	2,372	792	3,536	25,174	2,207	5,495
MASTER'S IN S&E	38,612	3,366	4,778	1,328	7,119	6,572	4,858	10,591
FULL TIME	28,559	2,183	3,907	1,109	4,852	5,287	3,445	7,776
PART TIME	10,053	1,183	871	219	2,267	1,285	1,413	2,815
BACHELOR'S IN S&E	28,793	1,750	4,388	706	5,262	5,618	3,380	7,689
FULL TIME	21,624	1,331	3,668	559	3,718	4,278	2,389	5,681
PART TIME	7,169	419	720	147	1,544	1,340	991	2,008
OTHER DEGREES	687	31	40	50	92	300	35	139
FULL TIME	579	17	33	35	69	279	26	120
PART TIME	108	14	7	15	23	21	9	19
2-YEAR INSTITUTIONS	48,851	5,870	5,548	975	12,209	10,476	4,972	8,801
FULL TIME	28,199	3,266	3,646	657	5,762	7,274	2,695	4,899
PART TIME	20,652	2,604	1,902	318	6,447	3,202	2,277	3,902

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-56. -- FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES, BY TYPE OF INSTITUTION, CONTROL, AND SEX: JANUARY 1982

TYPE OF INSTITUTION AND CONTROL	TOTAL	MEN		WOMEN	
		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
ALL INSTITUTIONS	267,063	216,630	81.1%	50,433	18.9%
PUBLIC	187,080	151,725	81.1	35,355	18.9
PRIVATE	79,983	64,905	81.1	15,078	18.9
INSTITUTIONS GRANTING:					
DOCTORATE IN S&E	188,102	154,174	82.0	33,928	18.0
PUBLIC	130,625	106,944	81.9	23,681	18.1
PRIVATE	57,477	47,230	82.2	10,247	17.8
MASTER'S IN S&E	28,559	23,438	82.1	5,121	17.9
PUBLIC	22,227	18,292	82.3	3,935	17.7
PRIVATE	6,332	5,146	81.3	1,186	18.7
BACHELOR'S IN S&E	21,624	17,266	79.8	4,358	20.2
PUBLIC	7,085	5,903	83.3	1,182	16.7
PRIVATE	14,539	11,363	78.2	3,176	21.8
OTHER DEGREES	579	531	91.7	48	8.3
PUBLIC	324	314	96.9	10	3.1
PRIVATE	255	217	85.1	38	14.9
2-YEAR INSTITUTIONS	28,199	21,221	75.3	6,978	24.7
PUBLIC	26,819	20,272	75.6	6,547	24.4
PRIVATE	1,380	949	68.8	431	31.2

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-57. -- PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES, BY TYPE OF INSTITUTION, CONTROL, AND SEX: JANUARY 1982

TYPE OF INSTITUTION AND CONTROL	TOTAL	MEN		WOMEN	
		NUMBER	PERCENT OF TOTAL	NUMBER	PERCENT OF TOTAL
ALL INSTITUTIONS	81,708	60,727	74.3%	20,981	25.7%
PUBLIC	53,258	38,990	73.2	14,268	26.8
PRIVATE	28,450	21,737	76.4	6,713	23.6
INSTITUTIONS GRANTING:					
DOCTORATE IN S&E	43,726	33,276	76.1	10,450	23.9
PUBLIC	26,011	19,006	73.1	7,005	26.9
PRIVATE	17,715	14,270	80.6	3,445	19.4
MASTER'S IN S&E	10,053	7,236	72.0	2,817	28.0
PUBLIC	6,079	4,407	72.5	1,672	27.5
PRIVATE	3,974	2,829	71.2	1,145	28.8
BACHELOR'S IN S&E	7,169	4,986	69.5	2,183	30.5
PUBLIC	1,484	1,043	70.3	441	29.7
PRIVATE	5,685	3,943	69.4	1,742	30.6
OTHER DEGREES	108	82	75.9	26	24.1
PUBLIC	44	41	93.2	3	6.8
PRIVATE	64	41	64.1	23	35.9
2-YEAR INSTITUTIONS	20,652	15,147	73.3	5,505	26.7
PUBLIC	19,640	14,493	73.8	5,147	26.2
PRIVATE	1,012	654	64.6	358	35.4

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-58. — SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	5,864	5,991	6,215	6,353	6,704	6,925	7,201
ENGINEERS	282	272	351	347	369	368	356
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	3	5	10	0	1	0	0
CHEMICAL ENGINEERS	10	16	10	7	11	9	9
CIVIL ENGINEERS	53	59	76	92	91	94	83
ELECTRICAL ENGINEERS	78	75	111	104	134	122	119
MECHANICAL ENGINEERS	79	66	87	84	87	90	92
OTHER ENGINEERS	59	51	57	60	45	53	53
PHYSICAL SCIENTISTS	769	787	767	814	952	1,010	1,021
ASTRONOMERS 2/	-	-	-	-	0	1	1
CHEMISTS	463	469	428	457	447	465	474
PHYSICISTS	247	251	295	278	271	292	285
OTHER PHYSICAL SCIENTISTS	59	67	84	79	234	252	261
ENVIRONMENTAL SCIENTISTS	88	113	72	52	168	167	182
ATMOSPHERIC SCIENTISTS	4	7	1	1	1	2	1
EARTH SCIENTISTS	83	104	68	50	62	42	52
OCEANOGRAPHERS	1	2	3	1	1	1	8
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	104	122	121
MATHEMATICAL AND COMPUTER SCIENTISTS	869	929	959	1,042	995	1,062	1,161
MATHEMATICIANS	762	822	821	904	831	892	897
COMPUTER SCIENTISTS	107	107	138	138	164	170	264
LIFE SCIENTISTS	1,991	1,944	2,119	2,312	2,365	2,469	2,482
AGRICULTURAL SCIENTISTS	145	148	232	258	255	219	206
BIOLOGICAL SCIENTISTS	845	929	999	1,013	842	877	927
MEDICAL SCIENTISTS	1,001	867	888	1,041	1,118	1,205	1,207
OTHER LIFE SCIENTISTS 2/	-	-	-	-	150	168	142
PSYCHOLOGISTS	471	486	442	401	413	434	482
SOCIAL SCIENTISTS	1,394	1,460	1,505	1,385	1,442	1,415	1,517
ECONOMISTS	339	307	315	265	290	297	301
POLITICAL SCIENTISTS	317	338	332	317	351	334	406
SOCIOLOGISTS	533	534	518	494	501	485	526
OTHER SOCIAL SCIENTISTS	205	281	340	309	300	299	284

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-59. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	4,561	4,655	4,922	5,006	5,314	5,342	5,593
ENGINEERS	229	223	286	284	277	270	269
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	3	4	9	0	0	0	0
CHEMICAL ENGINEERS	9	14	10	7	6	5	5
CIVIL ENGINEERS	37	41	50	69	61	64	57
ELECTRICAL ENGINEERS	68	63	88	80	96	82	88
MECHANICAL ENGINEERS	65	55	77	74	75	75	76
OTHER ENGINEERS	47	46	52	54	39	44	43
PHYSICAL SCIENTISTS	687	683	653	692	766	792	807
ASTRONOMERS 2/	-	-	-	-	0	0	0
CHEMISTS	410	409	372	392	390	403	411
PHYSICISTS	223	219	222	241	228	236	238
OTHER PHYSICAL SCIENTISTS	54	55	59	59	148	153	158
ENVIRONMENTAL SCIENTISTS	75	85	49	35	107	104	124
ATMOSPHERIC SCIENTISTS	4	6	1	1	1	2	1
EARTH SCIENTISTS	70	77	46	33	49	33	44
OCEANOGRAPHERS	1	2	2	1	1	1	8
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	56	68	69
MATHEMATICAL AND COMPUTER SCIENTISTS	728	766	794	843	807	829	910
MATHEMATICIANS	641	687	683	729	701	721	727
COMPUTER SCIENTISTS	87	79	111	114	106	108	183
LIFE SCIENTISTS	1,374	1,341	1,526	1,649	1,890	1,931	1,923
AGRICULTURAL SCIENTISTS	135	143	222	235	231	201	182
BIOLOGICAL SCIENTISTS	730	737	800	790	752	770	812
MEDICAL SCIENTISTS	509	461	504	624	768	806	797
OTHER LIFE SCIENTISTS 2/	-	-	-	-	139	154	132
PSYCHOLOGISTS	374	386	361	339	328	316	355
SOCIAL SCIENTISTS	1,094	1,171	1,253	1,164	1,139	1,100	1,205
ECONOMISTS	267	247	261	224	224	230	222
POLITICAL SCIENTISTS	277	287	295	291	280	260	325
SOCIOLOGISTS	408	421	447	423	410	393	442
OTHER SOCIAL SCIENTISTS	142	216	250	226	225	217	216

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-60. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	1,303	1,336	1,293	1,347	1,390	1,583	1,608
ENGINEERS	53	49	65	63	92	98	87
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	0	1	1	0	1	0	0
CHEMICAL ENGINEERS	1	2	0	0	5	4	4
CIVIL ENGINEERS	16	18	26	23	30	30	26
ELECTRICAL ENGINEERS	10	12	23	24	38	40	31
MECHANICAL ENGINEERS	14	11	10	10	12	15	16
OTHER ENGINEERS	12	5	5	6	6	9	10
PHYSICAL SCIENTISTS	82	104	114	122	186	218	214
ASTRONOMERS 2/	-	-	-	-	0	1	1
CHEMISTS	53	60	56	65	57	62	63
PHYSICISTS	24	32	33	37	43	56	47
OTHER PHYSICAL SCIENTISTS	5	12	25	20	86	99	103
ENVIRONMENTAL SCIENTISTS	13	28	23	17	61	63	58
ATMOSPHERIC SCIENTISTS	0	1	0	0	0	0	0
EARTH SCIENTISTS	13	27	22	17	13	9	6
OCEANOGRAPHERS	0	0	1	0	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	48	54	52
MATHEMATICAL AND COMPUTER SCIENTISTS	141	163	165	199	188	233	251
MATHEMATICIANS	121	135	138	175	130	171	170
COMPUTER SCIENTISTS	20	28	27	24	58	62	81
LIFE SCIENTISTS	617	603	593	663	475	538	559
AGRICULTURAL SCIENTISTS	10	5	10	23	24	18	24
BIOLOGICAL SCIENTISTS	115	192	199	223	90	107	115
MEDICAL SCIENTISTS	492	406	384	417	350	399	410
OTHER LIFE SCIENTISTS 2/	-	-	-	-	11	14	10
PSYCHOLOGISTS	97	100	81	62	89	118	127
SOCIAL SCIENTISTS	300	289	252	221	303	315	312
ECONOMISTS	72	60	54	41	66	67	79
POLITICAL SCIENTISTS	40	51	37	26	71	74	81
SOCIOLOGISTS	125	113	71	71	91	92	84
OTHER SOCIAL SCIENTISTS	63	65	90	83	75	82	68

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-61. — MALE SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	4,928	5,108	5,183	3,925	3,956	4,033	1,003	1,152	1,150
ENGINEERS	366	362	350	275	266	264	91	96	86
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1	0	0	0	0	0	1	0	0
CHEMICAL ENGINEERS	11	9	9	6	5	5	5	4	4
CIVIL ENGINEERS	89	92	81	60	63	56	29	29	25
ELECTRICAL ENGINEERS	134	122	119	96	82	88	38	40	31
MECHANICAL ENGINEERS	86	87	90	74	73	74	12	14	16
OTHER ENGINEERS	45	52	51	39	43	41	6	9	10
PHYSICAL SCIENTISTS	784	833	828	646	670	667	138	163	161
ASTRONOMERS	0	1	1	0	0	0	0	1	1
CHEMISTS	372	388	389	331	342	341	41	46	48
PHYSICISTS	240	260	256	202	211	214	38	49	42
OTHER PHYSICAL SCIENTISTS	172	184	182	113	117	112	59	67	70
ENVIRONMENTAL SCIENTISTS	118	116	123	81	78	90	37	38	33
ATMOSPHERIC SCIENTISTS	1	2	1	1	2	1	0	0	0
EARTH SCIENTISTS	55	38	45	44	30	40	11	8	5
OCEANOGRAPHERS	0	0	2	0	0	2	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	62	76	75	36	46	47	26	30	28
MATHEMATICAL AND COMPUTER SCIENTISTS	717	763	810	573	588	625	144	175	185
MATHEMATICIANS	577	622	607	486	500	493	91	122	114
COMPUTER SCIENTISTS	140	141	203	87	88	132	53	53	71
LIFE SCIENTISTS	1,654	1,723	1,702	1,323	1,342	1,313	331	381	389
AGRICULTURAL SCIENTISTS	213	189	169	194	174	152	19	15	17
BIOLOGICAL SCIENTISTS	588	614	605	526	538	528	62	76	77
MEDICAL SCIENTISTS	799	866	877	554	583	586	245	283	291
OTHER LIFE SCIENTISTS	54	54	51	49	47	47	5	7	4
PSYCHOLOGISTS	269	292	285	214	214	210	55	78	75
SOCIAL SCIENTISTS	1,020	1,019	1,086	813	798	864	207	221	221
ECONOMISTS	248	260	263	198	209	202	50	51	61
POLITICAL SCIENTISTS	281	270	322	227	213	258	54	57	64
SOCIOLOGISTS	298	284	301	249	237	259	49	47	42
OTHER SOCIAL SCIENTISTS	193	205	199	139	139	145	54	66	54

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-62. — FEMALE SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES BY TYPE OF EMPLOYMENT: JANUARY 1980 - JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			FULL TIME			PART TIME		
	1980	1981	1982	1980	1981	1982	1980	1981	1982
TOTAL	1,776	1,817	2,018	1,389	1,386	1,560	387	431	458
ENGINEERS	3	6	6	2	4	5	1	2	1
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	0	0	0	0	0	0	0	0	0
CHEMICAL ENGINEERS	0	0	0	0	0	0	0	0	0
CIVIL ENGINEERS	2	2	2	1	1	1	1	1	1
ELECTRICAL ENGINEERS	0	0	0	0	0	0	0	0	0
MECHANICAL ENGINEERS	1	3	2	1	2	2	0	1	0
OTHER ENGINEERS	0	1	2	0	1	2	0	0	0
PHYSICAL SCIENTISTS	168	177	193	120	122	140	48	55	53
ASTRONOMERS	0	0	0	0	0	0	0	0	0
CHEMISTS	75	77	85	59	61	70	16	16	15
PHYSICISTS	31	32	29	26	25	24	5	7	5
OTHER PHYSICAL SCIENTISTS	62	68	79	35	36	44	27	32	33
ENVIRONMENTAL SCIENTISTS	50	51	59	26	26	34	24	25	25
ATMOSPHERIC SCIENTISTS	0	0	0	0	0	0	0	0	0
EARTH SCIENTISTS	7	4	7	5	3	6	2	1	1
OCEANOGRAPHERS	1	1	6	1	1	6	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	42	46	46	20	22	22	22	24	24
MATHEMATICAL AND COMPUTER SCIENTISTS	278	299	351	234	241	285	44	58	66
MATHEMATICIANS	254	270	290	215	221	234	39	49	56
COMPUTER SCIENTISTS	24	29	61	19	20	51	5	9	10
LIFE SCIENTISTS	711	746	780	567	589	610	144	157	170
AGRICULTURAL SCIENTISTS	42	30	37	37	27	30	5	3	7
BIOLOGICAL SCIENTISTS	254	263	322	226	237	284	28	31	38
MEDICAL SCIENTISTS	319	339	330	214	223	211	105	116	119
OTHER LIFE SCIENTISTS	96	114	91	90	107	85	6	7	6
PSYCHOLOGISTS	144	142	197	114	102	145	30	40	52
SOCIAL SCIENTISTS	422	396	432	326	302	341	96	94	91
ECONOMISTS	42	37	38	26	21	20	16	16	18
POLITICAL SCIENTISTS	70	64	84	53	47	67	17	17	17
SOCIOLOGISTS	203	201	225	161	156	183	42	45	42
OTHER SOCIAL SCIENTISTS	107	94	85	86	78	71	21	16	14

SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-63. — SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES BY FIELD OF EMPLOYMENT AND CONTROL: JANUARY 1981 AND JANUARY 1982

FIELD OF EMPLOYMENT	TOTAL			PUBLIC			PRIVATE		
	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82	1981	1982	PERCENT CHANGE 1981-82
TOTAL	6,925	7,201	4.0%	3,660	3,907	6.7%	3,265	3,294	0.9%
ENGINEERS	368	356	-3.3	248	234	-5.6	120	122	1.7
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	0	0	(1)	0	0	(1)	0	0	(1)
CHEMICAL ENGINEERS	9	9	.0	1	1	.0	8	8	.0
CIVIL ENGINEERS	94	83	-11.7	66	55	-16.7	28	28	.0
ELECTRICAL ENGINEERS	122	119	-2.5	84	80	-4.8	38	39	2.6
MECHANICAL ENGINEERS	90	92	2.2	55	56	1.8	35	36	2.9
OTHER ENGINEERS	53	53	.0	42	42	.0	11	11	.0
PHYSICAL SCIENTISTS	1,010	1,021	1.1	500	511	2.2	510	510	.0
ASTRONOMERS	1	1	.0	1	1	.0	0	0	(1)
CHEMISTS	465	474	1.9	274	282	2.9	191	192	.5
PHYSICISTS	292	285	-2.4	182	177	-2.7	110	108	-1.8
OTHER PHYSICAL SCIENTISTS	252	261	3.6	43	51	18.6	209	210	.5
ENVIRONMENTAL SCIENTISTS	167	182	9.0	62	77	24.2	105	105	.0
ATMOSPHERIC SCIENTISTS	2	1	-50.0	1	1	.0	1	0	-100.0
EARTH SCIENTISTS	42	52	23.8	29	40	37.9	13	12	-7.7
OCEANOGRAPHERS	1	8	700.0	1	8	700.0	0	0	(1)
OTHER ENVIRONMENTAL SCIENTISTS	122	121	-.8	31	28	-9.7	91	93	2.2
MATHEMATICAL AND COMPUTER SCIENTISTS	1,062	1,161	9.3	742	829	11.7	320	332	3.7
MATHEMATICIANS	892	897	.6	610	611	.2	282	286	1.4
COMPUTER SCIENTISTS	170	264	55.3	132	218	65.2	38	46	21.1
LIFE SCIENTISTS	2,469	2,482	.5	901	883	-2.0	1,568	1,599	2.0
AGRICULTURAL SCIENTISTS	219	206	-5.9	200	188	-6.0	19	18	-5.3
BIOLOGICAL SCIENTISTS	877	927	5.7	536	586	9.3	341	341	.0
MEDICAL SCIENTISTS	1,205	1,207	.2	63	49	-22.2	1,142	1,158	1.4
OTHER LIFE SCIENTISTS	168	142	-15.5	102	60	-41.2	66	82	24.2
PSYCHOLOGISTS	434	482	11.1	314	361	15.0	120	121	.8
SOCIAL SCIENTISTS	1,415	1,517	7.2	893	1,012	13.3	522	505	-3.3
ECONOMISTS	297	301	1.3	187	191	2.1	110	110	.0
POLITICAL SCIENTISTS	334	406	21.6	207	276	33.3	127	130	2.4
SOCIOLOGISTS	485	526	8.5	310	358	15.5	175	168	-4.0
OTHER SOCIAL SCIENTISTS	299	284	-5.0	189	187	-1.1	110	97	-11.8

1/ DATA OR COMPUTATION ERROR.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-64. -- SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES: JANUARY 1981 AND JANUARY 1982

INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1982	1981	1982	1981	1982	1981	1982	1981
TOTAL, ALL INSTITUTIONS	7,201	6,925	5,593	5,342	1,608	1,583	6,120	5,899
1 HOWARD UNIVERSITY	1,631I	1,612I	979I	979I	652I	633I	1,129I	1,116I
2 CHEYNEY STATE COLLEGE	456	571	456	571	0	0I	456	571
3 WAYNE COUNTY CMTY COLLEGE	234I	212I	76I	73I	158I	139I	160I	145I
4 FLORIDA A & M UNIVERSITY	225	223	216	202	9	21	220	206
5 UNIVERSITY OF D C	218I	216I	153I	150I	65I	66I	186I	183I
6 MEHARRY MEDICAL COLLEGE	193I	193I	192I	192I	1I	1I	193I	193I
7 SOUTHERN U & A&M COLLEGE	175I	172I	174I	171I	1I	1I	174I	171I
8 TUSKEGEE INSTITUTE	144I	139	139I	134	5I	5	140I	136
9 TENNESSEE STATE UNIV	140	278	133	224	7	54	136	245
10 NC AG & TECH STATE UNIV	130I	128	126I	124	4I	4	126I	125
TOTAL, 1ST 10 INSTS.	3,546	3,230	2,644	2,306	902	924	2,923	2,579
11 JACKSON STATE UNIVERSITY	130I	128	114I	112	16I	16	121I	119
12 TEXAS SOUTHERN UNIV	124I	122I	110I	108I	14I	14I	114I	112I
13 ALABAMA A & M UNIVERSITY	122	127	84	94	38	33	93	104
14 CHICAGO STATE UNIVERSITY	118	116	78	78	40	38	93	93
15 MOREHOUSE COLLEGE	106I	100	66I	64	40I	36	84I	79
16 NORTH CAROLINA CNTRL UNIV	97I	96	76I	75	21I	21	83I	82
17 MORGAN STATE UNIVERSITY	95I	93I	89I	87I	6I	6I	90I	88I
18 VIRGINIA STATE UNIVERSITY	95	90	79	75	16	15	87	83
19 COMPTON COMMUNITY COLLEGE	83	77	20	20	63	57	45	41
20 LINCOLN UNIVERSITY (MO)	82I	78I	73I	71I	9I	7I	80I	77I
TOTAL, 1ST 20 INSTS.	4,598	4,257	3,433	3,090	1,165	1,167	3,818	3,461
21 XAVIER UNIVERSITY OF LA	81I	77	64I	62	17I	15	72I	68
22 ALABAMA STATE UNIVERSITY	76	66	52	49	24	17	61	55
23 SOUTH CAROLINA ST COLLEGE	71I	68I	68I	66I	3I	2I	70I	67I
24 COPPIN STATE COLLEGE	69	83I	49	59I	20	24I	54	71I
25 FORT VALLEY STATE COLLEGE	69	80I	69	73I	0	7I	69	80I
26 GRAMBLING STATE UNIV	68	73I	61	64I	7	9I	63	68I
27 PRAIRIE VIEW A & M UNIV	67	88I	59	87I	8	1I	62	87I
28 WINSTON-SALEM STATE UNIV	66	61	57	53	9	8	59	55
29 DELAWARE STATE COLLEGE	64	64	63	63	1	1	63	63
30 ALCORN STATE UNIVERSITY	63I	61I	63I	61I	0I	0I	63I	61I
TOTAL, 1ST 30 INSTS.	5,292	4,978	4,038	3,727	1,254	1,251	4,456	4,138
31 UNIV OF ARK PINE BLUFF	63	73I	62	68I	1	5I	62	70I
32 FISK UNIVERSITY	61I	59I	33I	32I	28I	27I	47I	45I
33 HAMPTON INSTITUTE	60I	58I	58I	56I	2I	2I	58I	56I
34 FAYETTEVILLE STATE UNIV	60	59	47	44	13	15	0	59I
35 BETHUNE COOKMAN COLLEGE	58	49I	54	38I	4	11I	57	44I
36 COL OF THE VIRGIN ISLANDS	57	29I	25	25I	32	4I	31	29I
37 BOWIE STATE COLLEGE	56I	52I	40I	39I	16I	13I	46I	43I
38 CLARK COLLEGE	56I	53I	38I	37I	18I	16I	47I	45I
39 MISS VALLEY STATE UNIV	55	55	53	51	2	4	54	53
40 VIRGINIA UNION UNIVERSITY	53I	49I	24I	23I	29I	26I	36I	33I
TOTAL, 1ST 40 INSTS.	5,871	5,514	4,472	4,140	1,399	1,374	4,896	4,619
41 U OF MD EASTERN SHORE	53	48	49	44	4	4	51	46
42 ATLANTA UNIVERSITY	51	58	39	43	12	15	41	36
43 LINCOLN UNIVERSITY (PA)	50I	47	39I	38	11I	9	43I	40
44 CENTRAL STATE UNIVERSITY	48	46	41	43	7	3	44	44
45 SPELMAN COLLEGE	46	41	31	26	15	15	36	32
46 ELIZABETH CITY STATE UNIV	44I	41	33I	32	11I	9	36I	34
47 SAVANNAH STATE COLLEGE	43I	42I	43I	42I	0I	0I	43I	42I
48 SHAW COLLEGE AT DETROIT	42I	40I	32I	31I	10I	9I	35I	34I
49 BISHOP COLLEGE	39I	38I	39I	38I	0I	0I	39I	38I
50 TALLADEGA COLLEGE	39I	38	36I	35	3I	3	36I	35
TOTAL, 1ST 50 INSTS.	6,326	5,953	4,854	4,512	1,472	1,441	5,302	5,002

SEE FOOTNOTES AT END OF TABLE.

TABLE B-64. — SCIENTISTS AND ENGINEERS EMPLOYED AT HISTORICALLY BLACK COLLEGES: JANUARY 1981 AND JANUARY 1982

- CONTINUED INSTITUTIONAL RANKING	TOTAL		FULL TIME		PART TIME		TOTAL FTE	
	1982	1981	1982	1981	1982	1981	1982	1981
51 BENEDICT COLLEGE	39	47	38	44	1	3	39	44
52 ALBANY STATE COLLEGE	37	38	36	36	1	2	36	29
53 MILES COLLEGE	351	331	291	281	61	51	321	301
54 WILBERFORCE UNIVERSITY	331	311	211	201	121	111	261	251
55 HIGHLAND PARK CMTY COL	32	271	21	271	11	01	28E	271
56 ST AUGUSTINES COLLEGE	31	36	28	28	3	8	28	31
57 LE MOYNE-OWEN COLLEGE	291	271	211	201	81	71	241	231
58 LAMSON STATE CMTY COLLEGE	29	161	18	141	11	21	21	151
59 BENNETT COLLEGE (NC)	281	261	181	171	101	91	251	231
60 NORFOLK STATE UNIVERSITY	27	721	25	581	2	141	25	641
TOTAL, 1ST 60 INSTS.	6,646	6,306	5,109	4,804	1,537	1,502	5,589	5,317
61 KENTUCKY STATE UNIVERSITY	271	261	271	261	01	01	271	261
62 LANGSTON UNIVERSITY	26	46	23	39	3	7	25	43
63 TOUGALOO COLLEGE	251	241	251	241	01	01	251	241
64 KNOXVILLE COLLEGE	251	241	161	161	91	81	251	241
65 LIVINGSTONE COLLEGE	24	311	21	231	3	81	22	271
66 OAKWOOD COLLEGE	241	231	231	221	11	11	231	221
67 DILLARD UNIVERSITY	22	21	19	18	3	3	20	18
68 PHILANDER SMITH COLLEGE	21	22	13	13	8	9	15	15
69 COAHOMA JUNIOR COLLEGE	21	151	19	151	2	01	21	151
70 CLAFLIN COLLEGE	21	19	19	18	2	1	20	19
TOTAL, 1ST 70 INSTS.	6,882	6,557	5,314	5,018	1,568	1,539	5,813	5,552
71 SHAW UNIVERSITY	21	251	21	241	0	11	21	251
72 PAINE COLLEGE	211	201	201	191	11	11	211	201
73 JOHNSON C SMITH UNIV	201	19	201	19	01	0	201	15
74 S D BISHOP ST JR COLLEGE	201	19	201	19	01	0	201	19
75 RUST COLLEGE	18	191	17	171	1	21	18	181
76 STILLMAN COLLEGE	17	161	16	161	1	01	16	161
77 MORRIS BROWN COLLEGE	15	13	11	12	4	1	12	12
78 MARY HOLMES COLLEGE	131	121	131	121	01	01	131	121
79 LANE COLLEGE	131	12	31	3	101	9	121	111
80 BARBER-SCOTIA COLLEGE	13	81	8	71	5	11	10	71
TOTAL, 1ST 80 INSTS.	7,053	6,720	5,463	5,166	1,590	1,554	5,977	5,707
81 UTICA JUNIOR COLLEGE	12	191	10	191	2	01	10	191
82 PAUL QUINN COLLEGE	12	7	11	7	1	0	11	7
83 JARVIS CHRISTIAN COLLEGE	12	12	12	12	0	0	12	12
84 EDWARD WATERS COLLEGE	111	111	111	111	01	01	111	111
85 SELMA UNIVERSITY	11	11	10	9	1	2	10	10
86 FLORIDA MEMORIAL COLLEGE	111	10	51	5	61	5	101	91
87 TEXAS COLLEGE	111	111	111	111	01	01	111	111
88 MORRIS COLLEGE	111	11	111	11	01	0	111	11
89 ALLEN UNIVERSITY	11	241	9	151	2	91	11	181
90 WILEY COLLEGE	101	101	101	101	01	01	101	101
TOTAL, 1ST 90 INSTS.	7,165	6,846	5,563	5,276	1,602	1,570	6,085	5,825
91 DENMARK TECHNICAL COLLEGE	10	13	10	13	0	0	10	13
92 VOORHEES COLLEGE	81	81	71	71	11	11	71	71
93 MORRISTOWN COLLEGE	7	81	4	71	3	11	7	81
94 PRENTISS NORM & IND INST	41	41	21	21	21	21	41	41
95 SOUTHWESTN CHRISTIAN COL	4	4	4	4	0	0	4	4
96 FRIENDSHIP COLLEGE	31	31	31	31	01	01	31	31
97 HARRIS STOWE STATE COL	01	201	01	131	01	71	01	171
TOTAL, 1ST 97 INSTS.	7,201	6,906	5,593	5,325	1,608	1,581	6,120	5,881
TOTAL, ALL OTHER INSTS.	0	19	0	17	0	2	0	17

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED.
DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-65. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND INSTITUTIONAL CATEGORY: JANUARY 1982

FIELD OF EMPLOYMENT	INSTITUTIONAL CATEGORY 1/				
	DOCTORATE GRANTING	COMPREHENSIVE	GENERAL BACCALAUREATE	PROFESSIONAL AND SPECIALIZED	2-YEAR
TOTAL	175,345	62,773	26,401	35,129	49,123
ENGINEERS	19,908	6,119	915	3,452	6,025
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	791	111	56	225	140
CHEMICAL ENGINEERS	1,534	404	38	216	92
CIVIL ENGINEERS	3,249	1,160	184	501	1,006
ELECTRICAL ENGINEERS	4,326	1,545	242	1,012	1,899
MECHANICAL ENGINEERS	3,099	1,448	189	675	1,241
OTHER ENGINEERS	6,909	1,451	206	823	1,647
PHYSICAL SCIENTISTS	15,718	7,399	3,991	1,696	5,573
ASTRONOMERS	890	117	65	9	176
CHEMISTS	7,480	4,213	2,492	849	3,127
PHYSICISTS	6,261	2,839	1,297	751	1,836
OTHER PHYSICAL SCIENTISTS	1,087	230	137	87	434
ENVIRONMENTAL SCIENTISTS	5,680	2,199	737	462	981
ATMOSPHERIC SCIENTISTS	649	83	36	72	45
EARTH SCIENTISTS	3,533	1,647	532	234	734
OCEANOGRAPHERS	1,030	241	71	103	78
OTHER ENVIRONMENTAL SCIENTISTS	468	228	98	53	124
MATHEMATICAL AND COMPUTER SCIENTISTS	13,003	10,349	4,716	1,803	12,268
MATHEMATICIANS	8,908	7,415	3,624	1,139	8,801
COMPUTER SCIENTISTS	4,095	2,934	1,092	668	3,467
LIFE SCIENTISTS	89,945	15,268	5,510	25,051	10,462
AGRICULTURAL SCIENTISTS	12,731	1,997	415	100	1,256
BIOLOGICAL SCIENTISTS	24,609	7,278	3,760	5,687	5,444
MEDICAL SCIENTISTS	48,361	4,475	462	18,397	1,820
OTHER LIFE SCIENTISTS	4,244	1,518	873	867	1,942
PSYCHOLOGISTS	7,827	6,585	3,164	1,102	4,986
SOCIAL SCIENTISTS	23,264	14,854	7,368	1,563	8,828
ECONOMISTS	6,620	4,348	2,079	464	1,883
POLITICAL SCIENTISTS	4,686	3,301	1,747	339	1,773
SOCIOLOGISTS	5,057	4,095	2,407	399	2,700
OTHER SOCIAL SCIENTISTS	6,901	3,110	1,135	361	2,472

1/ DATA SHOWN FOR DOCTORATE-GRANTING INSTITUTIONS IN THIS NCES CLASSIFICATION OF INSTITUTIONS DIFFERS FROM THE CLASSIFICATION USED ELSEWHERE IN THIS REPORT.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-66. — FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND INSTITUTIONAL CATEGORY: JANUARY 1982

FIELD OF EMPLOYMENT	INSTITUTIONAL CATEGORY 1/				
	DOCTORATE GRANTING	COMPREHENSIVE	GENERAL BACCALAUREATE	PROFESSIONAL AND SPECIALIZED	2-YEAR
TOTAL	144,576	47,486	20,236	26,416	28,349
ENGINEERS	16,869	4,267	679	2,823	3,411
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	700	71	37	196	79
CHEMICAL ENGINEERS	1,321	319	27	186	58
CIVIL ENGINEERS	2,721	855	144	410	606
ELECTRICAL ENGINEERS	3,764	1,028	184	778	1,057
MECHANICAL ENGINEERS	2,634	1,007	134	559	760
OTHER ENGINEERS	5,729	987	153	694	851
PHYSICAL SCIENTISTS	13,878	6,104	3,327	1,529	3,667
ASTRONOMERS	824	94	38	7	97
CHEMISTS	6,445	3,483	2,089	764	2,019
PHYSICISTS	5,729	2,362	1,094	677	1,292
OTHER PHYSICAL SCIENTISTS	880	165	106	81	259
ENVIRONMENTAL SCIENTISTS	5,030	1,858	607	414	659
ATMOSPHERIC SCIENTISTS	590	56	25	68	22
EARTH SCIENTISTS	3,107	1,398	442	198	525
OCEANOGRAPHERS	965	225	64	97	43
OTHER ENVIRONMENTAL SCIENTISTS	368	179	76	51	69
MATHEMATICAL AND COMPUTER SCIENTISTS	10,649	7,179	3,375	1,340	5,779
MATHEMATICIANS	7,300	5,290	2,689	862	4,418
COMPUTER SCIENTISTS	3,349	1,889	686	478	1,361
LIFE SCIENTISTS	72,897	12,235	4,477	18,373	7,232
AGRICULTURAL SCIENTISTS	11,532	1,873	371	95	845
BIOLOGICAL SCIENTISTS	22,028	6,087	3,122	5,137	3,801
MEDICAL SCIENTISTS	35,909	3,102	264	12,601	1,133
OTHER LIFE SCIENTISTS	3,428	1,173	720	540	1,453
PSYCHOLOGISTS	6,307	4,826	2,234	498	2,702
SOCIAL SCIENTISTS	18,946	11,017	5,537	1,239	4,899
ECONOMISTS	5,539	3,030	1,539	349	945
POLITICAL SCIENTISTS	3,813	2,570	1,406	258	1,138
SOCIOLOGISTS	4,065	3,116	1,808	320	1,470
OTHER SOCIAL SCIENTISTS	5,529	2,301	782	312	1,346

1/ DATA SHOWN FOR DOCTORATE-GRANTING INSTITUTIONS IN THIS NCES CLASSIFICATION OF INSTITUTIONS DIFFERS FROM THE CLASSIFICATION USED ELSEWHERE IN THIS REPORT.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-67. — PART-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITIES AND COLLEGES BY FIELD OF EMPLOYMENT AND INSTITUTIONAL CATEGORY: JANUARY 1982

FIELD OF EMPLOYMENT	INSTITUTIONAL CATEGORY 1/				
	DOCTORATE GRANTING	COMPREHENSIVE	GENERAL BACCALAUREATE	PROFESSIONAL AND SPECIALIZED	2-YEAR
TOTAL	30,769	15,287	6,165	8,713	20,774
ENGINEERS	3,039	1,852	236	629	2,614
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	91	40	19	29	61
CHEMICAL ENGINEERS	213	85	11	30	34
CIVIL ENGINEERS	528	305	40	91	400
ELECTRICAL ENGINEERS	562	517	58	234	842
MECHANICAL ENGINEERS	465	441	55	116	481
OTHER ENGINEERS	1,180	464	53	129	796
PHYSICAL SCIENTISTS	1,840	1,295	664	167	1,906
ASTRONOMERS	66	23	27	2	79
CHEMISTS	1,035	730	403	85	1,108
PHYSICISTS	532	477	203	74	544
OTHER PHYSICAL SCIENTISTS	207	65	31	6	175
ENVIRONMENTAL SCIENTISTS	650	341	130	48	322
ATMOSPHERIC SCIENTISTS	59	27	11	4	23
EARTH SCIENTISTS	426	249	90	36	209
OCEANOGRAPHERS	65	16	7	6	35
OTHER ENVIRONMENTAL SCIENTISTS	100	49	22	2	55
MATHEMATICAL AND COMPUTER SCIENTISTS	2,354	3,170	1,341	463	6,489
MATHEMATICIANS	1,608	2,125	935	273	4,383
COMPUTER SCIENTISTS	746	1,045	406	190	2,106
LIFE SCIENTISTS	17,048	3,033	1,033	6,678	3,230
AGRICULTURAL SCIENTISTS	1,199	124	44	5	411
BIOLOGICAL SCIENTISTS	2,581	1,191	638	550	1,643
MEDICAL SCIENTISTS	12,452	1,373	198	5,796	687
OTHER LIFE SCIENTISTS	816	345	153	327	489
PSYCHOLOGISTS	1,520	1,759	930	404	2,284
SOCIAL SCIENTISTS	4,318	3,837	1,831	324	3,929
ECONOMISTS	1,081	1,318	540	115	938
POLITICAL SCIENTISTS	873	731	339	81	635
SOCIOLOGISTS	992	979	509	79	1,230
OTHER SOCIAL SCIENTISTS	1,372	809	353	49	1,126

1/ DATA SHOWN FOR DOCTORATE-GRANTING INSTITUTIONS IN THIS NCES CLASSIFICATION OF INSTITUTIONS DIFFERS FROM THE CLASSIFICATION USED ELSEWHERE IN THIS REPORT.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE 8-68. — SCIENTISTS AND ENGINEERS EMPLOYED AT FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	12,496	13,281	13,917	14,821	15,080	15,296	15,247
ENGINEERS	5,850	5,985	6,365	6,627	6,515	6,609	6,598
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	201	207	208	222	240	247	244
CHEMICAL ENGINEERS	220	238	270	282	276	297	288
CIVIL ENGINEERS	152	168	217	151	211	227	240
ELECTRICAL ENGINEERS	2,702	2,632	2,729	2,718	2,229	2,301	2,280
MECHANICAL ENGINEERS	1,376	1,424	1,572	1,693	1,586	1,590	1,572
OTHER ENGINEERS	1,199	1,316	1,369	1,561	1,973	1,947	1,974
PHYSICAL SCIENTISTS	4,560	4,835	5,002	5,379	5,620	5,512	5,480
ASTRONOMERS 2/	-	-	-	-	152	151	140
CHEMISTS	1,242	1,215	1,382	1,414	1,454	1,423	1,412
PHYSICISTS	2,917	3,037	3,080	3,394	3,463	3,503	3,500
OTHER PHYSICAL SCIENTISTS	401	583	540	571	551	435	428
ENVIRONMENTAL SCIENTISTS	182	350	397	507	709	853	801
ATMOSPHERIC SCIENTISTS	110	183	194	173	101	217	162
EARTH SCIENTISTS	70	161	189	315	294	297	290
OCEANOGRAPHERS	2	6	14	19	16	26	23
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	298	313	326
MATHEMATICAL AND COMPUTER SCIENTISTS	1,265	1,357	1,372	1,465	1,383	1,444	1,531
MATHEMATICIANS	740	666	651	770	678	702	723
COMPUTER SCIENTISTS	525	691	721	695	705	742	808
LIFE SCIENTISTS	494	643	658	706	727	754	731
AGRICULTURAL SCIENTISTS	0	6	0	0	1	5	4
BIOLOGICAL SCIENTISTS	403	537	561	610	498	523	528
MEDICAL SCIENTISTS	91	100	97	96	94	70	59
OTHER LIFE SCIENTISTS 2/	-	-	-	-	134	156	140
PSYCHOLOGISTS	10	9	19	17	5	9	4
SOCIAL SCIENTISTS	135	102	104	120	121	115	102
ECONOMISTS	39	45	57	61	83	73	66
POLITICAL SCIENTISTS	10	15	8	9	13	14	12
SOCIOLOGISTS	2	4	1	4	1	5	4
OTHER SOCIAL SCIENTISTS	84	38	38	46	24	23	20

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-69. — MALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	11,734	12,370	13,005	13,780	13,759	13,765	13,611
ENGINEERS	5,784	5,899	6,269	6,518	6,306	6,301	6,271
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	200	206	206	220	234	232	229
CHEMICAL ENGINEERS	211	229	261	275	258	273	264
CIVIL ENGINEERS	149	166	215	148	202	219	231
ELECTRICAL ENGINEERS	2,680	2,602	2,705	2,687	2,169	2,217	2,182
MECHANICAL ENGINEERS	1,360	1,406	1,550	1,667	1,557	1,529	1,512
OTHER ENGINEERS	1,184	1,290	1,332	1,521	1,886	1,831	1,853
PHYSICAL SCIENTISTS	4,277	4,509	4,661	4,980	5,195	5,062	4,995
ASTRONOMERS 2/	-	-	-	-	139	141	131
CHEMISTS	1,123	1,103	1,256	1,278	1,286	1,253	1,234
PHYSICISTS	2,788	2,882	2,941	3,230	3,262	3,265	3,237
OTHER PHYSICAL SCIENTISTS	366	524	464	472	508	403	393
ENVIRONMENTAL SCIENTISTS	170	316	361	460	601	726	667
ATMOSPHERIC SCIENTISTS	101	167	183	121	198	191	145
EARTH SCIENTISTS	67	144	166	283	244	249	236
OCEANOGRAPHERS	2	5	12	16	15	22	21
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	344	264	265
MATHEMATICAL AND COMPUTER SCIENTISTS	1,021	1,100	1,122	1,168	1,065	1,065	1,103
MATHEMATICIANS	637	557	550	605	536	542	544
COMPUTER SCIENTISTS	384	543	572	563	529	523	559
LIFE SCIENTISTS	354	455	492	535	482	512	493
AGRICULTURAL SCIENTISTS	0	2	0	0	0	5	3
BIOLOGICAL SCIENTISTS	279	375	417	477	329	345	358
MEDICAL SCIENTISTS	75	78	75	58	68	56	44
OTHER LIFE SCIENTISTS 2/	-	-	-	-	85	106	88
PSYCHOLOGISTS	8	7	16	15	5	6	3
SOCIAL SCIENTISTS	120	84	84	104	105	93	79
ECONOMISTS	32	36	45	53	75	63	54
POLITICAL SCIENTISTS	8	14	8	9	12	13	11
SOCIOLOGISTS	1	2	0	3	0	2	2
OTHER SOCIAL SCIENTISTS	79	32	31	39	18	15	12

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-70. — FEMALE FULL-TIME SCIENTISTS AND ENGINEERS EMPLOYED AT FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD OF EMPLOYMENT: JANUARY 1975 - JANUARY 1982 1/

FIELD OF EMPLOYMENT	1975	1976	1977	1978	1980	1981	1982
TOTAL	586	637	710	820	947	1,028	1,076
ENGINEERS	44	49	65	79	163	173	185
AERONAUTICAL AND ASTRONAUTICAL ENGINEERS	1	1	2	2	6	6	6
CHEMICAL ENGINEERS	6	5	6	5	14	17	15
CIVIL ENGINEERS	4	0	1	3	4	5	7
ELECTRICAL ENGINEERS	11	15	14	21	41	45	52
MECHANICAL ENGINEERS	11	10	16	19	23	22	23
OTHER ENGINEERS	13	18	26	29	75	78	82
PHYSICAL SCIENTISTS	190	182	249	300	258	269	279
ASTRONOMERS 2/	-	-	-	-	9	9	7
CHEMISTS	90	74	107	104	116	122	131
PHYSICISTS	79	79	89	107	108	118	124
OTHER PHYSICAL SCIENTISTS	21	29	53	89	25	20	17
ENVIRONMENTAL SCIENTISTS	8	27	27	37	75	92	91
ATMOSPHERIC SCIENTISTS	5	11	8	9	2	16	14
EARTH SCIENTISTS	3	15	17	25	29	29	28
OCEANOGRAPHERS	0	1	2	3	1	3	[illegible]
OTHER ENVIRONMENTAL SCIENTISTS 2/	-	-	-	-	43	44	[illegible]
MATHEMATICAL AND COMPUTER SCIENTISTS	217	215	219	251	250	277	315
MATHEMATICIANS	88	88	88	153	122	125	144
COMPUTER SCIENTISTS	129	127	131	98	128	152	171
LIFE SCIENTISTS	116	150	133	140	193	201	192
AGRICULTURAL SCIENTISTS	0	0	0	0	1	0	1
BIOLOGICAL SCIENTISTS	104	135	120	110	139	150	137
MEDICAL SCIENTISTS	12	15	13	30	11	9	10
OTHER LIFE SCIENTISTS 2/	-	-	-	-	42	42	44
PSYCHOLOGISTS	1	2	3	2	0	2	1
SOCIAL SCIENTISTS	10	[illegible]	14	11	8	14	13
ECONOMISTS	3	[illegible]	6	5	4	6	7
POLITICAL SCIENTISTS	1	1	0	0	1	1	0
SOCIOLOGISTS	1	2	1	0	1	2	1
OTHER SOCIAL SCIENTISTS	5	5	7	6	2	5	5

1/ DATA WERE NOT COLLECTED IN 1979.
2/ DATA NOT AVAILABLE PRIOR TO 1980.
SOURCE: NATIONAL SCIENCE FOUNDATION

TABLE B-71. — SCIENTISTS AND ENGINEERS EMPLOYED AT UNIVERSITY-ADMINISTERED FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTERS BY FIELD: JANUARY 1982

INSTITUTIONAL RANKING	TOTAL	ENGI-NEERING	PHYSICAL SCIENCES	ENVIRON-MENTAL SCIENCES	MATH & COMPUTER SCIENCES	LIFE SCIENCES	PSYCHO-LOGY	SOCIAL SCIENCES
TOTAL, ALL INSTITUTIONS	15,247	6,598	5,480	801	1,531	731	4	102
1 LOS ALAMOS NATIONAL LAB (UNIV OF CALIFORNIA)	2,868	929	1,464	77	258	137	0	3
2 JET PROPULSION LABORATORY (CALIFORNIA INST OF TECH)	2,739E	1,984E	438E	34E	255E	28E	0E	0E
3 LAWRENCE LIVERMORE LAB (UNIV OF CALIFORNIA)	2,700	1,090	1,039	110	396	65	0	0
4 ARGONNE NATL LABORATORY (UNIV OF CHICAGO)	1,979	778	743	171	89	184	0	14
5 BROOKHAVEN NAT'L LAB (AUI) 1/	1,077	325	437	33	92	180	0	10
6 LINCOLN LABORATORY (MASS INST OF TECHNOLOGY)	1,067	744	206	0	116	0	1	0
7 LAWRENCE BERKELEY LAB (UNIV OF CALIFORNIA)	949E	172	403	208	75	86	0	5
8 FERMI NAT ACCELERATOR LAB (URA) 2/	310	102	200	0	8	0	0	0
9 NATL CTR ATMOSPHERIC RES (UCAR) 3/	294	53	0	157	84	0	0	0
10 STANFORD LINEAR ACCELRTR CTR (STANFORD UNIVERSITY)	271	117	130	0	24	0	0	0
TOTAL, 1ST 10 INSTS.	14,254	6,294	5,060	790	1,397	680	1	32
11 PLASMA PHYSICS LABORATORY (PRINCETON UNIV)	263	148	97	0	18	0	0	0
12 CENTER FOR NAVAL ANALYSES (UNIV OF ROCHESTER)	177E	24	55	0	55	2	2	39
13 AMES LABORATORY (IOWA STATE UNIV OF S&T)	174	46	117	1	10	0	0	0
14 OAK RIDGE INST NUCLR STDS (ORAU) 5/	146	6	44	4	11	49	1	31
15 NAT'L RADIO ASTRONOMY OBS (AUI) 1/	96	40	36	0	20	0	0	0
16 KITT PEAK NAT'L OBSERVTRY (AURA) 4/	67	22	32	0	13	0	0	0
17 NAT'L ASTRON & IONOS CTR (CORNELL UNIVERSITY)	39	17	13	6	3	0	0	0
18 SACRAMENTO PEAK OBSERVTRY (AURA) 4/	19	1	15	0	3	0	0	0
19 CERRO TOLOLO INTER-AM OBS (AURA) 4/	12	0	11	0	1	0	0	0
TOTAL, 1ST 19 INSTS.	15,247	6,598	5,480	801	1,531	731	4	102

1/ ASSOCIATED UNIVERSITIES, INC.
2/ UNIVERSITIES RESEARCH ASSOCIATION
3/ UNIVERSITY CORPORATION FOR ATMOSPHERIC RESEARCH
4/ ASSOCIATION OF UNIVERSITIES FOR RESEARCH IN ASTRONOMY, INC.
5/ OAK RIDGE ASSOCIATED UNIVERSITIES

NOTE: NUMBERS FOLLOWED BY THE LETTER "E" ARE ESTIMATED; NUMBERS FOLLOWED BY "I" ARE IMPUTED. DASHES INDICATE THAT DATA ARE NOT AVAILABLE; DASHES FOLLOWED BY "C" INDICATE CONFIDENTIAL DATA.
SOURCE: NATIONAL SCIENCE FOUNDATION

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TABLE A1A

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
ALL UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	168134	164668	148238	145875	19896	18793
FIRST PROFESSIONAL	2220	53540	49974	37085	34375	16455	15599
MASTER'S	2230	90780	86490	59064	57202	31716	29288
BACHELOR'S OR THE EQUIVALENT	2240	36317	33185	22676	22092	13641	11093
TOTAL	2200	348771	334317	267063	259544	81708	74773

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	28049	27006	8370	7824	27174	26201	8001	7477	875	805	369	347
AERONAUTICAL & ASTRONAUTICAL	2611	1083	1057	240	205	1062	1035	230	196	21	22	10	9
CHEMICAL ENGINEERS	2612	1911	1902	373	381	1815	1833	337	348	96	69	36	33
CIVIL ENGINEERS	2613	4736	4447	1364	1270	4570	4314	1298	1224	166	133	66	46
ELECTRICAL ENGINEERS	2614	6811	6519	2213	2065	6675	6394	2152	2014	136	125	61	51
MECHANICAL ENGINEERS	2615	5094	4932	1558	1391	4996	4820	1507	1343	98	112	51	48
OTHER ENGINEERS	2616	8414	8149	2622	2512	8056	7805	2477	2352	358	344	145	160
PHYSICAL SCIENTISTS (TOTAL)	2620	28505	28180	5872	5891	25837	25582	4565	4546	2668	2598	1307	1345
ASTRONOMERS	2621	1060	900	197	165	979	821	166	139	81	79	31	26
CHEMISTS	2622	14800	14767	3361	3322	12902	12895	2390	2307	1898	1872	971	1015
PHYSICISTS	2623	11154	11010	1830	1904	10643	10521	1640	1711	511	489	190	193
OTHER PHYSICAL SCIENTISTS	2624	1491	1503	484	500	1313	1345	369	389	178	158	115	111
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	8568	8563	1491	1478	7759	7817	1168	1167	809	746	323	311
ATMOSPHERIC SCIENTISTS	2631	761	763	124	155	711	713	114	135	50	50	10	20
EARTH SCIENTISTS	2632	5670	5638	1010	996	5214	5212	795	809	456	426	215	187
OCEANOGRAPHERS	2633	1394	1467	129	142	1195	1305	100	99	199	162	29	43
OTHER ENVIRONMENTAL SCIENTISTS	2634	743	695	228	185	639	587	159	124	104	108	69	61
MATHEMATICAL SCIENTISTS (TOTAL)	2640	28322	27128	13817	11859	23461	22677	10044	8539	4861	4451	3773	3320
MATHEMATICIANS	2641	20559	20234	9324	8346	17041	16908	6257	5579	3518	3326	3067	2767
COMPUTER SCIENTISTS	2642	7763	6894	4493	3513	6420	5769	3787	2960	1343	1125	706	553
LIFE SCIENTISTS (TOTAL)	2650	115214	110562	31022	27215	86553	84762	22520	19852	28661	25800	8502	7363
AGRICULTURAL SCIENTISTS	2651	14716	14567	1783	1561	13239	13210	1406	1268	1477	1357	377	293
BIOLOGICAL SCIENTISTS	2652	40175	39918	6603	6438	31052	31174	4094	4038	9123	8744	2509	2400
MEDICAL SCIENTISTS	2653	53009	50839	20506	17797	39770	38352	16148	13924	13239	12487	4358	3873
OTHER LIFE SCIENTISTS	2654	7314	5238	2130	1419	2492	2026	872	622	4822	3212	1258	797
PSYCHOLOGISTS (TOTAL)	2660	16767	16837	6897	6526	12317	12427	4125	3899	4450	4410	2772	2627
SOCIAL SCIENTISTS (TOTAL)	2670	41638	41268	14239	13980	33529	33452	10304	10132	8109	7816	3935	3848
ECONOMISTS	2671	11402	11232	3992	3847	10204	10112	3440	3311	1198	1120	552	536
POLITICAL SCIENTISTS	2672	9187	8995	2659	2573	7904	7838	2113	2041	1283	1157	546	532
SOCIOLOGISTS	2673	10779	10752	3879	3943	7741	7792	2335	2363	3038	2960	1544	1580
OTHER SOCIAL SCIENTISTS	2674	10270	10289	3709	3617	7680	7710	2416	2417	2590	2579	1293	1200
TOTAL	2600	267063	259544	81708	74773	216630	212918	60727	55612	50433	46626	20981	19161

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	36419	34830	28049	27006	8370	7824	31114.	6773.	21.8
AERONAUTICAL & ASTRONAUTICAL	2711	1323	1262	1083	1057	240	205	1163.	314.	27.0
CHEMICAL ENGINEERS	2712	2284	2283	1911	1902	373	381	2042.	464.	22.7
CIVIL ENGINEERS	2713	6100	5717	4736	4447	1364	1270	5244.	791.	15.1
ELECTRICAL ENGINEERS	2714	9024	8584	6811	6519	2213	2065	7607.	1731.	22.8
MECHANICAL ENGINEERS	2715	6652	6323	5094	4932	1558	1391	5653.	873.	15.4
OTHER ENGINEERS	2716	11036	10661	8414	8149	2622	2512	9406.	2600.	27.6
PHYSICAL SCIENTISTS (TOTAL)	2720	34377	34071	28505	28180	5872	5891	31114.	7361.	23.7
ASTRONOMERS	2721	1257	1065	1060	900	197	165	1100.	458.	41.6
CHEMISTS	2722	18161	18089	14800	14767	3361	3322	16337.	3367.	20.6
PHYSICISTS	2723	12984	12914	11154	11010	1830	1904	11947.	2817.	23.6
OTHER PHYSICAL SCIENTISTS	2724	1975	2003	1491	1503	484	500	1731.	719.	41.5
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	10059	10041	8568	8563	1491	1478	9188.	3005.	32.7
ATMOSPHERIC SCIENTISTS	2731	885	918	761	763	124	155	813.	401.	49.3
EARTH SCIENTISTS	2732	6680	6634	5670	5638	1010	996	6066.	1414.	23.3
OCEANOGRAPHERS	2733	1523	1609	1394	1467	129	142	1470.	930.	63.3
OTHER ENVIRONMENTAL SCIENTISTS	2734	971	880	743	695	228	185	839.	261.	31.1
MATHEMATICAL SCIENTISTS (TOTAL)	2740	42139	38987	28322	27128	13817	11859	34014.	2185.	6.4
MATHEMATICIANS	2741	29883	28580	20559	20234	9324	8346	24540.	1368.	5.6
COMPUTER SCIENTISTS	2742	12256	10407	7763	6894	4493	3513	9474.	816.	8.6
LIFE SCIENTISTS (TOTAL)	2750	146236	137777	115214	110562	31022	27215	126871.	35534.	28.0
AGRICULTURAL SCIENTISTS	2751	16499	16128	14716	14567	1783	1561	15553.	6645.	42.6
BIOLOGICAL SCIENTISTS	2752	46778	46356	40175	39918	6603	6438	42462.	12770.	29.8
MEDICAL SCIENTISTS	2753	73515	68636	53009	50839	20506	17797	60341.	15516.	25.7
OTHER LIFE SCIENTISTS	2754	9444	6657	7314	5238	2130	1419	8086.	604.	7.5
PSYCHOLOGISTS (TOTAL)	2760	23664	23363	16767	16837	6897	6526	19405.	1502.	7.7
SOCIAL SCIENTISTS (TOTAL)	2770	55877	55248	41638	41268	14239	13980	46992.	3604.	7.7
ECONOMISTS	2771	15394	15079	11402	11232	3992	3847	12904.	1249.	9.7
POLITICAL SCIENTISTS	2772	11846	11568	9187	8995	2659	2573	10243.	633.	6.2
SOCIOLOGISTS	2773	14658	14695	10779	10752	3879	3943	12296.	715.	5.8
OTHER SOCIAL SCIENTISTS	2774	13979	13906	10270	10289	3709	3617	11549.	1007.	8.7
TOTAL	2700	348771	334317	267063	259544	81708	74773	298699.	59963.	20.1

TABLE A1B

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PUBLIC UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	113463	112104	101859	100807	11604	11297
FIRST PROFESSIONAL	2220	27731	25437	19849	17486	7882	7951
MASTER'S	2230	70079	66812	47510	45979	22569	20833
BACHELOR'S OR THE EQUIVALENT	2240	29065	26213	17862	17104	11203	9109
TOTAL	2200	240338	230566	187080	181376	53258	49190

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	20655	19768	6195	5793	19981	19161	5901	5509	674	607	294	284
AERONAUTICAL & ASTRONAUTICAL	2611	664	654	159	120	650	640	152	114	14	14	7	6
CHEMICAL ENGINEERS	2612	1370	1342	265	288	1292	1290	234	260	78	52	31	28
CIVIL ENGINEERS	2613	3858	3555	1072	967	3718	3454	1015	930	140	101	57	37
ELECTRICAL ENGINEERS	2614	4381	4181	1507	1421	4293	4106	1463	1392	88	75	44	29
MECHANICAL ENGINEERS	2615	3690	3540	1074	955	3615	3448	1034	916	75	92	40	39
OTHER ENGINEERS	2616	6692	6496	2118	2042	6413	6223	2003	1897	279	273	115	145
PHYSICAL SCIENTISTS (TOTAL)	2620	18677	18472	3929	4049	16999	16822	3079	3159	1678	1650	850	890
ASTRONOMERS	2621	780	623	141	124	721	569	120	106	59	54	21	18
CHEMISTS	2622	9520	9594	2363	2374	8359	8417	1701	1673	1161	1177	662	701
PHYSICISTS	2623	7367	7284	1140	1267	7026	6962	1026	1144	341	322	114	123
OTHER PHYSICAL SCIENTISTS	2624	1010	971	285	284	893	874	232	236	117	97	53	48
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	6860	6833	1104	1128	6255	6291	880	909	605	542	224	219
ATMOSPHERIC SCIENTISTS	2631	629	666	110	139	592	624	100	119	37	42	10	20
EARTH SCIENTISTS	2632	4596	4583	766	769	4226	4245	606	631	370	338	160	138
OCEANOGRAPHERS	2633	1048	1033	97	115	917	936	76	82	131	97	21	33
OTHER ENVIRONMENTAL SCIENTISTS	2634	587	551	131	105	520	486	98	77	67	65	33	28
MATHEMATICAL SCIENTISTS (TOTAL)	2640	21058	20160	10095	8770	17380	16829	7217	6244	3678	3331	2878	2526
MATHEMATICIANS	2641	15226	14983	6934	6308	12598	12526	4568	4194	2628	2457	2366	2114
COMPUTER SCIENTISTS	2642	5832	5177	3161	2462	4782	4303	2649	2050	1050	874	512	412
LIFE SCIENTISTS (TOTAL)	2650	78085	74588	18870	16495	58294	57067	13126	11453	19791	17521	5744	5042
AGRICULTURAL SCIENTISTS	2651	14123	13956	1704	1500	12696	12647	1340	1216	1427	1309	364	284
BIOLOGICAL SCIENTISTS	2652	26343	26363	4390	4464	20564	20900	2729	2782	5779	5463	1661	1682
MEDICAL SCIENTISTS	2653	32002	30180	11126	9435	23135	21989	8359	6969	8867	8191	2767	2466
OTHER LIFE SCIENTISTS	2654	5617	4089	1650	1096	1899	1531	698	486	3718	2558	952	610
PSYCHOLOGISTS (TOTAL)	2660	11863	11933	4071	3945	8719	8841	2373	2309	3144	3092	1698	1636
SOCIAL SCIENTISTS (TOTAL)	2670	29882	29622	8994	9010	24097	24062	6414	6398	5785	5560	2580	2612
ECONOMISTS	2671	7723	7626	2293	2265	6909	6875	1939	1913	814	751	354	352
POLITICAL SCIENTISTS	2672	6197	6124	1522	1500	5333	5344	1195	1164	864	780	327	336
SOCIOLOGISTS	2673	7671	7641	2386	2550	5564	5595	1451	1495	2107	2046	935	1055
OTHER SOCIAL SCIENTISTS	2674	8291	8231	2793	2695	6291	6248	1829	1826	2000	1983	964	869
TOTAL	2600	187080	181376	53258	49190	151725	149073	38990	35981	35355	32303	14268	13209

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	26850	25561	20655	19768	6195	5793	22941.	3919.	17.1
AERONAUTICAL & ASTRONAUTICAL	2711	823	774	664	654	159	120	709.	121.	17.1
CHEMICAL ENGINEERS	2712	1635	1630	1370	1342	265	288	1461.	300.	20.5
CIVIL ENGINEERS	2713	4930	4522	3858	3555	1072	967	4264.	597.	14.0
ELECTRICAL ENGINEERS	2714	5888	5602	4381	4181	1507	1421	4933.	631.	12.8
MECHANICAL ENGINEERS	2715	4764	4495	3690	3540	1074	955	4072.	454.	11.1
OTHER ENGINEERS	2716	8810	8538	6692	6496	2118	2042	7503.	1816.	24.2
PHYSICAL SCIENTISTS (TOTAL)	2720	22606	22521	18677	18472	3929	4049	20364.	4154.	20.4
ASTRONOMERS	2721	921	747	780	623	141	124	801.	309.	38.6
CHEMISTS	2722	11883	11968	9520	9594	2363	2374	10562.	1752.	16.6
PHYSICISTS	2723	8507	8551	7367	7284	1140	1267	7838.	1606.	20.5
OTHER PHYSICAL SCIENTISTS	2724	1295	1255	1010	971	285	284	1163.	488.	42.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	7964	7961	6860	6833	1104	1128	7296.	2299.	31.5
ATMOSPHERIC SCIENTISTS	2731	739	805	629	666	110	139	673.	332.	49.3
EARTH SCIENTISTS	2732	5362	5352	4596	4583	766	769	4871.	1124.	23.1
OCEANOGRAPHERS	2733	1145	1148	1048	1033	97	115	1105.	637.	57.6
OTHER ENVIRONMENTAL SCIENTISTS	2734	718	656	587	551	131	105	646.	205.	31.7
MATHEMATICAL SCIENTISTS (TOTAL)	2740	31153	28930	21058	20160	10095	8770	25129.	1164.	4.6
MATHEMATICIANS	2741	22160	21291	15226	14983	6934	6308	18158.	661.	3.6
COMPUTER SCIENTISTS	2742	8993	7639	5832	5177	3161	2462	6971.	503.	7.2
LIFE SCIENTISTS (TOTAL)	2750	96955	91083	78085	74588	18870	16495	85133.	23067.	27.1
AGRICULTURAL SCIENTISTS	2751	15827	15456	14123	13956	1704	1500	14942.	6434.	43.1
BIOLOGICAL SCIENTISTS	2752	30733	30827	26343	26363	4390	4464	28113.	7461.	26.5
MEDICAL SCIENTISTS	2753	43128	39615	32002	30180	11126	9435	35886.	8824.	24.6
OTHER LIFE SCIENTISTS	2754	7267	5185	5617	4089	1650	1096	6192.	349.	5.6
PSYCHOLOGISTS (TOTAL)	2760	15934	15878	11863	11933	4071	3945	13355.	945.	7.1
SOCIAL SCIENTISTS (TOTAL)	2770	38876	38632	29882	29622	8994	9010	33106.	2558.	7.7
ECONOMISTS	2771	10016	9891	7723	7626	2293	2265	8546.	932.	10.9
POLITICAL SCIENTISTS	2772	7719	7624	6197	6124	1522	1500	6804.	405.	6.0
SOCIOLOGISTS	2773	10057	10191	7671	7641	2386	2550	8579.	509.	5.9
OTHER SOCIAL SCIENTISTS	2774	11084	10926	8291	8231	2793	2695	9177.	712.	7.8
TOTAL	2700	240338	230566	187080	181376	53258	49190	207325.	38106.	18.4

TABLE A1C

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PRIVATE UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	54671	52564	46379	45068	8292	7496
FIRST PROFESSIONAL	2220	25809	24537	17236	16889	8573	7648
MASTER'S	2230	20701	19678	11554	11223	9147	8455
BACHELOR'S OR THE EQUIVALENT	2240	7252	6972	4814	4988	2438	1984
TOTAL	2200	108433	103751	79983	78168	28450	25583

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	7394	7238	2175	2031	7193	7040	2100	1968	201	198	75	63
AERONAUTICAL & ASTRONAUTICAL	2611	419	403	81	85	412	395	78	82	7	8	3	3
CHEMICAL ENGINEERS	2612	541	560	108	93	523	543	103	88	18	17	5	5
CIVIL ENGINEERS	2613	878	892	292	303	852	860	283	294	26	32	9	9
ELECTRICAL ENGINEERS	2614	2430	2338	706	644	2382	2288	689	622	48	50	17	22
MECHANICAL ENGINEERS	2615	1404	1392	484	436	1381	1372	473	427	23	20	11	9
OTHER ENGINEERS	2616	1722	1653	504	470	1643	1582	474	455	79	71	30	15
PHYSICAL SCIENTISTS (TOTAL)	2620	9828	9708	1943	1842	8838	8760	1486	1387	990	948	457	455
ASTRONOMERS	2621	280	277	56	41	258	252	46	33	22	25	10	8
CHEMISTS	2622	5280	5173	998	948	4543	4478	689	634	737	695	309	314
PHYSICISTS	2623	3787	3726	690	637	3617	3559	614	567	170	167	76	70
OTHER PHYSICAL SCIENTISTS	2624	481	532	199	216	420	471	137	153	61	61	62	63
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1708	1730	387	350	1504	1526	288	258	204	204	99	92
ATMOSPHERIC SCIENTISTS	2631	132	97	14	16	119	89	14	16	13	8	0	0
EARTH SCIENTISTS	2632	1074	1055	244	227	988	967	189	178	86	88	55	49
OCEANOGRAPHERS	2633	346	434	32	27	278	369	24	17	68	65	8	10
OTHER ENVIRONMENTAL SCIENTISTS	2634	156	144	97	80	119	101	61	47	37	43	36	33
MATHEMATICAL SCIENTISTS (TOTAL)	2640	7264	6968	3722	3089	6081	5848	2827	2295	1183	1120	895	794
MATHEMATICIANS	2641	5333	5251	2390	2038	4443	4382	1689	1385	890	869	701	653
COMPUTER SCIENTISTS	2642	1931	1717	1332	1051	1638	1466	1138	910	293	251	194	141
LIFE SCIENTISTS (TOTAL)	2650	37129	35974	12152	10720	28259	27695	9394	8399	8870	8279	2758	2321
AGRICULTURAL SCIENTISTS	2651	593	611	79	61	543	563	66	52	50	48	13	9
BIOLOGICAL SCIENTISTS	2652	13832	13555	2213	1974	10488	10274	1365	1256	3344	3281	848	718
MEDICAL SCIENTISTS	2653	21007	20659	9380	8362	16635	16363	7789	6955	4372	4296	1591	1407
OTHER LIFE SCIENTISTS	2654	1697	1149	480	323	593	495	174	136	1104	654	306	187
PSYCHOLOGISTS (TOTAL)	2660	4904	4904	2826	2581	3598	3586	1752	1590	1306	1318	1074	991
SOCIAL SCIENTISTS (TOTAL)	2670	11756	11646	5245	4970	9432	9390	3890	3734	2324	2256	1355	1236
ECONOMISTS	2671	3679	3606	1699	1582	3295	3237	1501	1398	384	369	198	184
POLITICAL SCIENTISTS	2672	2990	2871	1137	1073	2571	2494	918	877	419	377	219	196
SOCIOLOGISTS	2673	3108	3111	1493	1393	2177	2197	884	868	931	914	609	525
OTHER SOCIAL SCIENTISTS	2674	1979	2058	916	922	1389	1462	587	591	590	596	329	331
TOTAL	2600	79983	78168	28450	25583	64905	63845	21737	19631	15078	14323	6713	5952

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	9569	9269	7394	7238	2175	2031	8173.	2854.	34.9
AERONAUTICAL & ASTRONAUTICAL	2711	500	488	419	403	81	85	454.	192.	42.3
CHEMICAL ENGINEERS	2712	649	653	541	560	108	93	581.	164.	28.2
CIVIL ENGINEERS	2713	1170	1195	878	892	292	303	980.	194.	19.8
ELECTRICAL ENGINEERS	2714	3136	2982	2430	2338	706	644	2674.	1100.	41.1
MECHANICAL ENGINEERS	2715	1888	1828	1404	1392	484	436	1581.	419.	26.5
OTHER ENGINEERS	2716	2226	2123	1722	1653	504	470	1903.	785.	41.3
PHYSICAL SCIENTISTS (TOTAL)	2720	11771	11550	9828	9708	1943	1842	10750.	3207.	29.8
ASTRONOMERS	2721	336	318	280	277	56	41	299.	149.	49.8
CHEMISTS	2722	6278	6121	5280	5173	998	948	5776.	1615.	28.0
PHYSICISTS	2723	4477	4363	3787	3726	690	637	4108.	1212.	29.5
OTHER PHYSICAL SCIENTISTS	2724	680	748	481	532	199	216	568.	232.	40.8
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	2095	2080	1708	1730	387	350	1892.	706.	37.3
ATMOSPHERIC SCIENTISTS	2731	146	113	132	97	14	16	140.	69.	49.3
EARTH SCIENTISTS	2732	1318	1282	1074	1055	244	227	1195.	290.	24.3
OCEANOGRAPHERS	2733	378	461	346	434	32	27	365.	293.	80.3
OTHER ENVIRONMENTAL SCIENTISTS	2734	253	224	156	144	97	80	193.	55.	28.5
MATHEMATICAL SCIENTISTS (TOTAL)	2740	10986	10057	7264	6968	3722	3089	8885.	1021.	11.5
MATHEMATICIANS	2741	7723	7289	5333	5251	2390	2038	6382.	707.	11.1
COMPUTER SCIENTISTS	2742	3263	2768	1931	1717	1332	1051	2503.	313.	12.5
LIFE SCIENTISTS (TOTAL)	2750	49281	46694	37129	35974	12152	10720	41738.	12467.	29.9
AGRICULTURAL SCIENTISTS	2751	672	672	593	611	79	61	641.	211.	32.9
BIOLOGICAL SCIENTISTS	2752	16045	15529	13832	13555	2213	1974	14749.	5309.	36.0
MEDICAL SCIENTISTS	2753	30387	29021	21007	20659	9380	8362	24455.	6692.	27.4
OTHER LIFE SCIENTISTS	2754	2177	1472	1697	1149	480	323	1894.	255.	13.5
PSYCHOLOGISTS (TOTAL)	2760	7730	7485	4904	4904	2826	2581	6049.	557.	9.2
SOCIAL SCIENTISTS (TOTAL)	2770	17001	16616	11756	11646	5245	4970	13886.	1046.	7.5
ECONOMISTS	2771	5378	5188	3679	3606	1699	1582	4358.	316.	7.3
POLITICAL SCIENTISTS	2772	4127	3944	2990	2871	1137	1073	3440.	228.	6.6
SOCIOLOGISTS	2773	4601	4504	3108	3111	1493	1393	3717.	206.	5.5
OTHER SOCIAL SCIENTISTS	2774	2895	2980	1979	2058	916	922	2372.	295.	12.4
TOTAL	2700	108433	103751	79983	78168	28450	25583	91374.	21857.	23.9

TABLE A1D

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
DOCTORATE GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	122080	119348	109332	107154	12748	12194
FIRST PROFESSIONAL	2220	51609	48349	36107	33678	15502	14671
MASTER'S	2230	35035	34299	25539	25113	9496	9186
BACHELOR'S OR THE EQUIVALENT	2240	23104	21716	17124	17110	5980	4606
TOTAL	2200	231828	223712	188102	183055	43726	40657

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	21252	20867	4150	4142	20528	20191	3901	3898	724	676	249	244
AERONAUTICAL & ASTRONAUTICAL	2611	853	846	134	115	839	831	131	111	14	15	3	4
CHEMICAL ENGINEERS	2612	1718	1687	274	275	1635	1625	252	257	83	62	22	18
CIVIL ENGINEERS	2613	3447	3243	710	610	3311	3134	655	573	136	109	55	37
ELECTRICAL ENGINEERS	2614	4847	4738	882	900	4733	4637	851	874	114	101	31	26
MECHANICAL ENGINEERS	2615	3508	3505	697	651	3442	3416	667	620	66	89	30	31
OTHER ENGINEERS	2616	6879	6848	1453	1591	6568	6548	1345	1463	311	300	108	128
PHYSICAL SCIENTISTS (TOTAL)	2620	17251	16963	2372	2559	15837	15603	1974	2003	1414	1360	498	556
ASTRONOMERS	2621	867	736	79	64	802	672	63	48	65	64	16	16
CHEMISTS	2622	8293	8262	1326	1383	7377	7367	983	987	916	895	343	396
PHYSICISTS	2623	7130	6958	736	839	6812	6662	655	751	318	296	81	88
OTHER PHYSICAL SCIENTISTS	2624	961	1007	231	273	846	902	173	217	115	105	58	56
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	6208	6150	792	793	5594	5577	586	586	614	573	206	207
ATMOSPHERIC SCIENTISTS	2631	688	669	71	99	642	624	61	79	46	45	10	20
EARTH SCIENTISTS	2632	3799	3739	526	497	3490	3441	403	391	309	298	123	106
OCEANOGRAPHERS	2633	1249	1339	79	100	1070	1189	56	62	179	150	23	38
OTHER ENVIRONMENTAL SCIENTISTS	2634	472	403	116	97	392	323	66	54	80	80	50	43
MATHEMATICAL SCIENTISTS (TOTAL)	2640	13921	13411	3536	3163	11996	11658	2681	2340	1925	1753	855	823
MATHEMATICIANS	2641	9453	9381	2343	2090	8277	8277	1673	1417	1176	1104	670	673
COMPUTER SCIENTISTS	2642	4468	4030	1193	1073	3719	3381	1008	923	749	649	185	150
LIFE SCIENTISTS (TOTAL)	2650	98096	94556	25174	22098	75444	73725	19162	16781	22652	20831	6012	5317
AGRICULTURAL SCIENTISTS	2651	12881	12667	1230	1056	11530	11432	956	857	1351	1235	274	199
BIOLOGICAL SCIENTISTS	2652	29652	29415	3433	3524	22911	23008	2163	2234	6741	6407	1270	1290
MEDICAL SCIENTISTS	2653	51121	48760	19235	16582	39070	37598	15414	13247	12051	11162	3821	3335
OTHER LIFE SCIENTISTS	2654	4442	3714	1276	936	1933	1687	629	443	2509	2027	647	493
PSYCHOLOGISTS (TOTAL)	2660	8212	8212	2207	2227	6121	6174	1337	1341	2091	2038	870	886
SOCIAL SCIENTISTS (TOTAL)	2670	23162	22896	5495	5675	18654	18592	3735	3894	4508	4304	1760	1781
ECONOMISTS	2671	6776	6712	1518	1515	6110	6086	1299	1297	666	626	219	218
POLITICAL SCIENTISTS	2672	4695	4583	1107	1039	4013	3990	846	799	682	593	261	240
SOCIOLOGISTS	2673	5259	5254	1280	1449	3772	3820	678	768	1487	1434	602	681
OTHER SOCIAL SCIENTISTS	2674	6432	6347	1590	1672	4759	4696	912	1030	1673	1651	678	642
TOTAL	2600	188102	183055	43726	40657	154174	151520	33276	30843	33928	31535	10450	9814

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	25402	25009	21252	20867	4150	4142	22644.	6654.	29.4
AERONAUTICAL & ASTRONAUTICAL	2711	987	961	853	846	134	115	896.	304.	33.9
CHEMICAL ENGINEERS	2712	1992	1962	1718	1687	274	275	1805.	457.	25.3
CIVIL ENGINEERS	2713	4157	3853	3447	3243	710	610	3687.	767.	20.8
ELECTRICAL ENGINEERS	2714	5729	5638	4847	4738	882	900	5105.	1700.	33.3
MECHANICAL ENGINEERS	2715	4205	4156	3508	3505	697	651	3731.	847.	22.7
OTHER ENGINEERS	2716	8332	8439	6879	6848	1453	1591	7420.	2579.	34.8
PHYSICAL SCIENTISTS (TOTAL)	2720	19623	19522	17251	16963	2372	2559	18171.	7000.	38.5
ASTRONOMERS	2721	946	800	867	736	79	64	861.	456.	53.0
CHEMISTS	2722	9619	9645	8293	8262	1326	1383	8837.	3167.	35.8
PHYSICISTS	2723	7866	7797	7130	6958	736	839	7387.	2704.	36.6
OTHER PHYSICAL SCIENTISTS	2724	1192	1280	961	1007	231	273	1086.	674.	62.1
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	7000	6943	6208	6150	792	793	6491.	2901.	44.7
ATMOSPHERIC SCIENTISTS	2731	759	768	688	669	71	99	714.	395.	55.3
EARTH SCIENTISTS	2732	4325	4236	3799	3739	526	497	3955.	1352.	34.2
OCEANOGRAPHERS	2733	1328	1439	1249	1339	79	100	1296.	909.	70.1
OTHER ENVIRONMENTAL SCIENTISTS	2734	588	500	472	403	116	97	526.	245.	46.6
MATHEMATICAL SCIENTISTS (TOTAL)	2740	17457	16574	13921	13411	3536	3163	15220.	1957.	12.9
MATHEMATICIANS	2741	11796	11471	9453	9381	2343	2090	10333.	1224.	11.8
COMPUTER SCIENTISTS	2742	5661	5103	4468	4030	1193	1073	4888.	733.	15.0
LIFE SCIENTISTS (TOTAL)	2750	123270	116654	98096	94556	25174	22098	107192.	35062.	32.7
AGRICULTURAL SCIENTISTS	2751	14111	13723	12881	12667	1230	1056	13504.	6551.	48.5
BIOLOGICAL SCIENTISTS	2752	33085	32939	29652	29415	3433	3524	30860.	12434.	40.3
MEDICAL SCIENTISTS	2753	70356	65342	51121	48760	19235	16582	57974.	15493.	26.7
OTHER LIFE SCIENTISTS	2754	5718	4650	4442	3714	1276	936	4855.	584.	12.0
PSYCHOLOGISTS (TOTAL)	2760	10419	10439	8212	8212	2207	2227	8987.	1373.	15.3
SOCIAL SCIENTISTS (TOTAL)	2770	28657	28571	23162	22896	5495	5675	25040.	3305.	13.2
ECONOMISTS	2771	8294	8227	6776	6712	1518	1515	7285.	1187.	16.3
POLITICAL SCIENTISTS	2772	5802	5622	4695	4583	1107	1039	5123.	572.	11.2
SOCIOLOGISTS	2773	6539	6703	5259	5254	1280	1449	5710.	618.	10.8
OTHER SOCIAL SCIENTISTS	2774	8022	8019	6432	6347	1590	1672	6922.	929.	13.4
TOTAL	2700	231828	223712	188102	183055	43726	40657	203744.	58251.	28.6

TABLE A1E

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PUBLIC DOCTORATE GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	85210	83824	77649	76390	7561	7434
FIRST PROFESSIONAL	2220	26461	24478	19107	17025	7354	7453
MASTER'S	2230	27012	26559	20653	20310	6359	6249
BACHELOR'S OR THE EQUIVALENT	2240	17953	16763	13216	13009	4737	3754
TOTAL	2200	156636	151624	130625	126734	26011	24890

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	15113	14814	2663	2850	14564	14315	2474	2651	549	499	189	199
AERONAUTICAL & ASTRONAUTICAL	2611	500	499	71	50	491	490	71	49	9	9	0	1
CHEMICAL ENGINEERS	2612	1229	1185	192	211	1160	1138	174	198	69	47	18	13
CIVIL ENGINEERS	2613	2765	2563	494	406	2651	2484	448	378	114	79	46	28
ELECTRICAL ENGINEERS	2614	2829	2768	432	499	2760	2712	415	488	69	56	17	11
MECHANICAL ENGINEERS	2615	2433	2428	399	409	2386	2356	375	382	47	72	24	27
OTHER ENGINEERS	2616	5357	5371	1075	1275	5116	5135	991	1156	241	236	84	119
PHYSICAL SCIENTISTS (TOTAL)	2620	11266	11066	1490	1773	10353	10162	1166	1375	913	904	324	398
ASTRONOMERS	2621	631	494	55	47	582	449	42	36	49	45	13	11
CHEMISTS	2622	5407	5462	929	1053	4824	4857	681	738	583	605	248	315
PHYSICISTS	2623	4670	4551	419	567	4456	4353	372	509	214	198	47	58
OTHER PHYSICAL SCIENTISTS	2624	558	559	87	106	491	503	71	92	67	56	16	14
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	4925	4829	576	597	4471	4422	434	451	454	407	142	146
ATMOSPHERIC SCIENTISTS	2631	561	580	70	94	528	542	60	74	33	38	10	20
EARTH SCIENTISTS	2632	3088	3045	405	390	2832	2806	307	306	256	239	98	84
OCEANOGRAPHERS	2633	913	912	54	78	799	826	39	49	114	86	15	29
OTHER ENVIRONMENTAL SCIENTISTS	2634	363	292	47	35	312	248	28	22	51	44	19	13
MATHEMATICAL SCIENTISTS (TOTAL)	2640	10372	9966	2043	1980	8884	8620	1441	1377	1488	1346	602	603
MATHEMATICIANS	2641	7078	7025	1449	1426	6173	6181	949	911	905	844	500	515
COMPUTER SCIENTISTS	2642	3294	2941	594	554	2711	2439	492	466	583	502	102	88
LIFE SCIENTISTS (TOTAL)	2650	65602	62949	14847	12986	50248	49068	10762	9333	15354	13881	4085	3653
AGRICULTURAL SCIENTISTS	2651	12435	12199	1193	1026	11128	11005	925	831	1307	1194	266	195
BIOLOGICAL SCIENTISTS	2652	19194	19241	2238	2506	14967	15283	1356	1527	4227	3958	882	979
MEDICAL SCIENTISTS	2653	30603	28635	10412	8705	22729	21535	7983	6622	7874	7100	2429	2083
OTHER LIFE SCIENTISTS	2654	3370	2874	1004	749	1424	1245	498	353	1946	1629	506	396
PSYCHOLOGISTS (TOTAL)	2660	5933	5897	1074	1115	4448	4469	608	650	1485	1428	466	465
SOCIAL SCIENTISTS (TOTAL)	2670	17414	17213	3318	3589	13976	13950	2121	2308	3438	3263	1197	1281
ECONOMISTS	2671	4967	4904	834	868	4463	4446	674	709	504	458	160	159
POLITICAL SCIENTISTS	2672	3250	3216	552	527	2771	2795	392	368	479	421	160	159
SOCIOLOGISTS	2673	4069	4034	761	1013	2924	2950	406	521	1145	1084	355	492
OTHER SOCIAL SCIENTISTS	2674	5128	5059	1171	1181	3818	3759	649	710	1310	1300	522	471
TOTAL	2600	130625	126734	26011	24890	106944	105006	19006	18145	23681	21728	7005	6745

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	17776	17664	15113	14814	2663	2850	16013.	3847.	24.0
AERONAUTICAL & ASTRONAUTICAL	2711	571	549	500	499	71	50	517.	114.	22.1
CHEMICAL ENGINEERS	2712	1421	1396	1229	1185	192	211	1291.	295.	22.9
CIVIL ENGINEERS	2713	3259	2969	2765	2563	494	406	2939.	582.	19.8
ELECTRICAL ENGINEERS	2714	3261	3267	2829	2768	432	499	2947.	611.	20.7
MECHANICAL ENGINEERS	2715	2832	2837	2433	2428	399	409	2556.	437.	17.1
OTHER ENGINEERS	2716	6432	6646	5357	5371	1075	1275	5762.	1808.	31.4
PHYSICAL SCIENTISTS (TOTAL)	2720	12756	12839	11266	11066	1490	1773	11812.	3929.	33.3
ASTRONOMERS	2721	686	541	631	494	55	47	618.	307.	49.7
CHEMISTS	2722	6336	6515	5407	5462	929	1053	5771.	1636.	28.3
PHYSICISTS	2723	5089	5118	4670	4551	419	567	4801.	1544.	32.2
OTHER PHYSICAL SCIENTISTS	2724	645	665	558	559	87	106	622.	442.	71.1
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	5501	5426	4925	4829	576	597	5122.	2206.	43.1
ATMOSPHERIC SCIENTISTS	2731	631	674	561	580	70	94	587.	328.	55.9
EARTH SCIENTISTS	2732	3493	3435	3088	3045	405	390	3196.	1067.	33.4
OCEANOGRAPHERS	2733	967	990	913	912	54	78	947.	619.	65.4
OTHER ENVIRONMENTAL SCIENTISTS	2734	410	327	363	292	47	35	392.	192.	49.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	12415	11946	10372	9966	2043	1980	11102.	1011.	9.1
MATHEMATICIANS	2741	8527	8451	7078	7025	1449	1426	7626.	566.	7.4
COMPUTER SCIENTISTS	2742	3888	3495	3294	2941	594	554	3477.	445.	12.8
LIFE SCIENTISTS (TOTAL)	2750	80449	75935	65602	62949	14847	12986	70884.	22735.	32.1
AGRICULTURAL SCIENTISTS	2751	13628	13225	12435	12199	1193	1026	13037.	6345.	48.7
BIOLOGICAL SCIENTISTS	2752	21432	21747	19194	19241	2238	2506	19964.	7245.	36.3
MEDICAL SCIENTISTS	2753	41015	37340	30603	28635	10412	8705	34208.	8813.	25.8
OTHER LIFE SCIENTISTS	2754	4374	3623	3370	2874	1004	749	3675.	332.	9.0
PSYCHOLOGISTS (TOTAL)	2760	7007	7012	5933	5897	1074	1115	6278.	858.	13.7
SOCIAL SCIENTISTS (TOTAL)	2770	20732	20802	17414	17213	3318	3589	18444.	2341.	12.7
ECONOMISTS	2771	5801	5772	4967	4904	834	868	5226.	893.	17.1
POLITICAL SCIENTISTS	2772	3802	3743	3250	3216	552	527	3475.	364.	10.5
SOCIOLOGISTS	2773	4830	5047	4069	4034	761	1013	4311.	436.	10.1
OTHER SOCIAL SCIENTISTS	2774	6299	6240	5128	5059	1171	1181	5432.	649.	11.9
TOTAL	2700	156636	151624	130625	126734	26011	24890	139654.	36927.	26.4

TABLE A1F

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PRIVATE DOCTORATE GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	36870	35524	31683	30764	5187	4760
FIRST PROFESSIONAL	2220	25148	23871	17000	16653	8148	7218
MASTER'S	2230	8023	7740	4886	4803	3137	2937
BACHELOR'S OR THE EQUIVALENT	2240	5151	4953	3908	4101	1243	852
TOTAL	2200	75192	72088	57477	56321	17715	15767

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	6139	6053	1487	1292	5964	5876	1427	1247	175	177	60	45
AERONAUTICAL & ASTRONAUTICAL	2611	353	347	63	65	348	341	60	62	5	6	3	3
CHEMICAL ENGINEERS	2612	489	502	82	64	475	487	78	59	14	15	4	5
CIVIL ENGINEERS	2613	682	680	216	204	660	650	207	195	22	30	9	9
ELECTRICAL ENGINEERS	2614	2018	1970	450	401	1973	1925	436	386	45	45	14	15
MECHANICAL ENGINEERS	2615	1075	1077	298	242	1056	1060	292	238	19	17	6	4
OTHER ENGINEERS	2616	1522	1477	378	316	1452	1413	354	307	70	64	24	9
PHYSICAL SCIENTISTS (TOTAL)	2620	5985	5897	882	786	5484	5441	708	628	501	456	174	158
ASTRONOMERS	2621	236	242	24	17	220	223	21	12	16	19	3	5
CHEMISTS	2622	2886	2800	397	330	2553	2510	302	249	333	290	95	81
PHYSICISTS	2623	2460	2407	317	272	2356	2309	283	242	104	98	34	30
OTHER PHYSICAL SCIENTISTS	2624	403	448	144	167	355	399	102	125	48	49	42	42
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1283	1321	216	196	1123	1155	152	135	160	166	64	61
ATMOSPHERIC SCIENTISTS	2631	127	89	1	5	114	82	1	5	13	7	0	0
EARTH SCIENTISTS	2632	711	694	121	107	658	635	96	85	53	59	25	22
OCEANOGRAPHERS	2633	336	427	25	22	271	363	17	13	65	64	8	9
OTHER ENVIRONMENTAL SCIENTISTS	2634	109	111	69	62	80	75	38	32	29	36	31	30
MATHEMATICAL SCIENTISTS (TOTAL)	2640	3549	3445	1493	1183	3112	3038	1240	963	437	407	253	220
MATHEMATICIANS	2641	2375	2356	894	664	2104	2096	724	506	271	260	170	158
COMPUTER SCIENTISTS	2642	1174	1089	599	519	1008	942	516	457	166	147	83	62
LIFE SCIENTISTS (TOTAL)	2650	32494	31607	10327	9112	25196	24657	8400	7448	7298	6950	1927	1664
AGRICULTURAL SCIENTISTS	2651	446	468	37	30	402	427	31	26	44	41	6	4
BIOLOGICAL SCIENTISTS	2652	10458	10174	1195	1018	7944	7725	807	707	2514	2449	388	311
MEDICAL SCIENTISTS	2653	20518	20125	8823	7877	16341	16063	7431	6625	4177	4062	1392	1252
OTHER LIFE SCIENTISTS	2654	1072	840	272	187	509	442	131	90	563	398	141	97
PSYCHOLOGISTS (TOTAL)	2660	2279	2315	1133	1112	1673	1705	729	691	606	610	404	421
SOCIAL SCIENTISTS (TOTAL)	2670	5748	5683	2177	2086	4678	4642	1614	1586	1070	1041	563	500
ECONOMISTS	2671	1809	1808	684	647	1647	1640	625	588	162	168	59	59
POLITICAL SCIENTISTS	2672	1445	1367	555	512	1242	1195	454	431	203	172	101	81
SOCIOLOGISTS	2673	1190	1220	519	436	848	870	272	247	342	350	247	189
OTHER SOCIAL SCIENTISTS	2674	1304	1288	419	491	941	937	263	320	363	351	156	171
TOTAL	2600	57477	56321	17715	15767	47230	46514	14270	12698	10247	9807	3445	3069

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	7626	7345	6139	6053	1487	1292	6631.	2808.	42.3
AERONAUTICAL & ASTRONAUTICAL	2711	416	412	353	347	63	65	380.	190.	50.0
CHEMICAL ENGINEERS	2712	571	566	489	502	82	64	514.	162.	31.5
CIVIL ENGINEERS	2713	898	884	682	680	216	204	747.	185.	24.8
ELECTRICAL ENGINEERS	2714	2468	2371	2018	1970	450	401	2157.	1089.	50.5
MECHANICAL ENGINEERS	2715	1373	1319	1075	1077	298	242	1175.	410.	34.9
OTHER ENGINEERS	2716	1900	1793	1522	1477	378	316	1657.	772.	46.6
PHYSICAL SCIENTISTS (TOTAL)	2720	6867	6683	5985	5897	882	786	6359.	3071.	48.3
ASTRONOMERS	2721	260	259	236	242	24	17	243.	149.	61.3
CHEMISTS	2722	3283	3130	2886	2800	397	330	3066.	1531.	49.9
PHYSICISTS	2723	2777	2679	2460	2407	317	272	2586.	1160.	44.9
OTHER PHYSICAL SCIENTISTS	2724	547	615	403	448	144	167	464.	232.	50.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1499	1517	1283	1321	216	196	1370.	694.	50.7
ATMOSPHERIC SCIENTISTS	2731	128	94	127	89	1	5	127.	68.	53.5
EARTH SCIENTISTS	2732	832	801	711	694	121	107	759.	285.	37.5
OCEANOGRAPHERS	2733	361	449	336	427	25	22	349.	290.	83.1
OTHER ENVIRONMENTAL SCIENTISTS	2734	178	173	109	111	69	62	135.	52.	38.5
MATHEMATICAL SCIENTISTS (TOTAL)	2740	5042	4628	3549	3445	1493	1183	4118.	946.	23.0
MATHEMATICIANS	2741	3269	3020	2375	2356	894	664	2707.	658.	24.3
COMPUTER SCIENTISTS	2742	1773	1608	1174	1089	599	519	1411.	288.	20.4
LIFE SCIENTISTS (TOTAL)	2750	42821	40719	32494	31607	10327	9112	36309.	12327.	34.0
AGRICULTURAL SCIENTISTS	2751	483	498	446	468	37	30	467.	206.	44.1
BIOLOGICAL SCIENTISTS	2752	11653	11192	10458	10174	1195	1018	10896.	5189.	47.6
MEDICAL SCIENTISTS	2753	29341	28002	20518	20125	8823	7877	23766.	6680.	28.1
OTHER LIFE SCIENTISTS	2754	1344	1027	1072	840	272	187	1180.	252.	21.4
PSYCHOLOGISTS (TOTAL)	2760	3412	3427	2279	2315	1133	1112	2709.	515.	19.0
SOCIAL SCIENTISTS (TOTAL)	2770	7925	7769	5748	5683	2177	2086	6596.	964.	14.6
ECONOMISTS	2771	2493	2455	1809	1808	684	647	2059.	294.	14.3
POLITICAL SCIENTISTS	2772	2000	1879	1445	1367	555	512	1648.	208.	12.6
SOCIOLOGISTS	2773	1709	1656	1190	1220	519	436	1399.	182.	13.0
OTHER SOCIAL SCIENTISTS	2774	1723	1779	1304	1288	419	491	1489.	280.	18.8
TOTAL	2700	75192	72088	57477	56321	17715	15767	64091.	21325.	33.3

TABLE A1G

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
MASTER'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	23303	23436	20372	20501	2931	2935
FIRST PROFESSIONAL	2220	613	410	393	164	220	246
MASTER'S	2230	12251	11455	6972	6418	5279	5037
BACHELOR'S OR THE EQUIVALENT	2240	2445	2520	822	825	1623	1695
TOTAL	2200	38612	37821	28559	27908	10053	9913

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	2183	1974	1183	1142	2119	1932	1137	1094	64	42	46	48
AERONAUTICAL & ASTRONAUTICAL	2611	26	22	14	19	25	21	14	19	1	1	0	0
CHEMICAL ENGINEERS	2612	115	130	55	64	108	127	43	50	7	3	12	14
CIVIL ENGINEERS	2613	479	431	206	243	461	423	200	237	18	8	6	6
ELECTRICAL ENGINEERS	2614	570	528	325	336	563	520	317	328	7	8	8	8
MECHANICAL ENGINEERS	2615	552	479	298	254	536	471	289	245	16	8	9	9
OTHER ENGINEERS	2616	441	384	285	226	426	370	274	215	15	14	11	11
PHYSICAL SCIENTISTS (TOTAL)	2620	3907	3975	871	992	3562	3638	640	730	345	337	231	262
ASTRONOMERS	2621	60	54	14	12	56	50	12	10	4	4	2	2
CHEMISTS	2622	2229	2255	476	573	1970	1996	301	376	259	259	175	197
PHYSICISTS	2623	1489	1547	334	362	1435	1489	294	316	54	58	40	46
OTHER PHYSICAL SCIENTISTS	2624	129	119	47	45	101	103	33	28	28	16	14	17
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1109	1144	219	260	1024	1066	178	218	85	78	[illegible]	42
ATMOSPHERIC SCIENTISTS	2631	35	45	15	16	34	44	15	16	1	1	0	0
EARTH SCIENTISTS	2632	910	954	156	195	849	894	124	163	61	60	32	32
OCEANOGRAPHERS	2633	52	46	9	12	39	40	8	10	13	6	1	2
OTHER ENVIRONMENTAL SCIENTISTS	2634	112	99	39	37	102	88	31	29	10	11	8	8
MATHEMATICAL SCIENTISTS (TOTAL)	2640	4852	4645	2267	2009	3983	3866	1650	1444	869	779	617	565
MATHEMATICIANS	2641	3665	3588	1500	1419	2999	2971	1002	960	666	617	498	459
COMPUTER SCIENTISTS	2642	1187	1057	767	590	984	895	648	484	203	162	119	106
LIFE SCIENTISTS (TOTAL)	2650	5287	5000	1285	1270	3870	3892	713	779	1417	1108	572	491
AGRICULTURAL SCIENTISTS	2651	588	625	101	82	532	574	77	63	56	51	24	19
BIOLOGICAL SCIENTISTS	2652	3510	3513	780	819	2874	2930	468	517	636	583	312	302
MEDICAL SCIENTISTS	2653	452	466	196	211	268	272	114	117	184	194	82	94
OTHER LIFE SCIENTISTS	2654	737	396	208	158	196	116	54	82	541	280	154	76
PSYCHOLOGISTS (TOTAL)	2660	3445	3482	1413	1332	2580	2649	834	797	865	833	579	535
SOCIAL SCIENTISTS (TOTAL)	2670	7776	7688	2815	2908	6300	6262	2084	2173	1476	1426	731	735
ECONOMISTS	2671	1972	1941	959	981	1754	1743	822	843	218	198	137	138
POLITICAL SCIENTISTS	2672	1907	1823	529	579	1655	1601	415	457	252	222	114	122
SOCIOLOGISTS	2673	2204	2177	712	721	1610	1573	448	453	594	604	264	268
OTHER SOCIAL SCIENTISTS	2674	1693	1747	615	627	1281	1345	399	420	412	402	216	207
TOTAL	2600	28559	27908	10053	9913	23438	23305	7236	7235	5121	4603	2817	2678

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	3366	3116	2183	1974	1183	1142	2534.	80.	3.2
AERONAUTICAL & ASTRONAUTICAL	2711	40	41	26	22	14	19	32.	5.	15.6
CHEMICAL ENGINEERS	2712	170	194	115	130	55	64	136.	6.	4.4
CIVIL ENGINEERS	2713	685	674	479	431	206	243	548.	17.	3.1
ELECTRICAL ENGINEERS	2714	895	864	570	528	325	336	668.	22.	3.3
MECHANICAL ENGINEERS	2715	850	733	552	479	298	254	634.	18.	2.8
OTHER ENGINEERS	2716	726	610	441	384	285	226	517.	12.	2.3
PHYSICAL SCIENTISTS (TOTAL)	2720	4778	4967	3907	3975	871	992	4260.	209.	4.9
ASTRONOMERS	2721	74	66	60	54	14	12	65.	2.	3.1
CHEMISTS	2722	2705	2828	2229	2255	476	573	2426.	105.	4.3
PHYSICISTS	2723	1823	1909	1489	1547	334	362	1626.	60.	3.7
OTHER PHYSICAL SCIENTISTS	2724	176	164	129	119	47	45	144.	42.	29.2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1328	1404	1109	1144	219	260	1192.	81.	6.8
ATMOSPHERIC SCIENTISTS	2731	50	61	35	45	15	16	43.	6.	14.0
EARTH SCIENTISTS	2732	1066	1149	910	954	156	195	967.	52.	5.4
OCEANOGRAPHERS	2733	61	58	52	46	9	12	56.	14.	25.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	151	136	112	99	39	37	125.	9.	7.2
MATHEMATICAL SCIENTISTS (TOTAL)	2740	7119	6654	4852	4645	2267	2009	5785.	121.	2.1
MATHEMATICIANS	2741	5165	5007	3665	3588	1500	1419	4300.	72.	1.7
COMPUTER SCIENTISTS	2742	1954	1647	1187	1057	767	590	1485.	49.	3.3
LIFE SCIENTISTS (TOTAL)	2750	6572	6270	5287	5000	1285	1270	5757.	258.	4.5
AGRICULTURAL SCIENTISTS	2751	689	707	588	625	101	82	625.	61.	9.8
BIOLOGICAL SCIENTISTS	2752	4290	4332	3510	3513	780	819	3779.	170.	4.5
MEDICAL SCIENTISTS	2753	648	677	452	466	196	211	529.	15.	2.8
OTHER LIFE SCIENTISTS	2754	945	554	737	396	208	158	824.	12.	1.5
PSYCHOLOGISTS (TOTAL)	2760	4858	4814	3445	3482	1413	1332	3935.	60.	1.5
SOCIAL SCIENTISTS (TOTAL)	2770	10591	10596	7776	7688	2815	2908	8755.	196.	2.2
ECONOMISTS	2771	2931	2922	1972	1941	959	981	2319.	37.	1.6
POLITICAL SCIENTISTS	2772	2436	2402	1907	1823	529	579	2070.	43.	2.1
SOCIOLOGISTS	2773	2916	2898	2204	2177	712	721	2442.	54.	2.2
OTHER SOCIAL SCIENTISTS	2774	2308	2374	1693	1747	615	627	1923.	61.	3.2
TOTAL	2700	38612	37821	28559	27908	10053	9913	32219.	1004.	3.1

TABLE A1M

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PUBLIC MASTER'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	17290	17792	15790	16110	1500	1682
FIRST PROFESSIONAL	2220	445	224	319	98	126	126
MASTER'S	2230	8622	8122	5468	4970	3154	3152
BACHELOR'S OR THE EQUIVALENT	2240	1949	2025	650	664	1299	1361
TOTAL	2200	28306	28163	22227	21842	6079	6321

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	1566	1398	873	793	1516	1364	832	752	50	34	41	41
AERONAUTICAL & ASTRONAUTICAL	2611	19	16	11	16	19	16	11	16	0	0	0	0
CHEMICAL ENGINEERS	2612	81	93	38	46	76	90	26	32	5	3	12	14
CIVIL ENGINEERS	2613	381	338	171	185	365	330	165	179	16	8	6	6
ELECTRICAL ENGINEERS	2614	356	330	220	231	351	325	213	225	5	5	7	6
MECHANICAL ENGINEERS	2615	355	296	200	158	342	289	194	153	13	7	6	5
OTHER ENGINEERS	2616	374	325	233	157	363	314	223	147	11	11	10	10
PHYSICAL SCIENTISTS (TOTAL)	2620	2869	2974	515	623	2625	2739	375	458	244	235	140	165
ASTRONOMERS	2621	51	45	9	8	48	42	8	7	3	3	1	1
CHEMISTS	2622	1624	1669	295	364	1449	1496	185	238	175	173	110	126
PHYSICISTS	2623	1079	1152	186	222	1039	1108	163	193	40	44	23	29
OTHER PHYSICAL SCIENTISTS	2624	115	108	25	29	89	93	19	20	26	15	6	9
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	1000	1039	168	213	927	974	136	175	73	65	32	38
ATMOSPHERIC SCIENTISTS	2631	33	43	8	10	32	42	8	10	1	1	0	0
EARTH SCIENTISTS	2632	816	857	129	163	763	808	102	134	53	49	27	29
OCEANOGRAPHERS	2633	49	46	7	11	38	40	6	9	11	6	1	2
OTHER ENVIRONMENTAL SCIENTISTS	2634	102	93	24	29	94	84	20	22	8	9	4	7
MATHEMATICAL SCIENTISTS (TOTAL)	2640	3879	3716	1508	1394	3171	3099	1077	984	708	617	431	410
MATHEMATICIANS	2641	2925	2878	1017	1000	2383	2390	667	667	542	488	350	333
COMPUTER SCIENTISTS	2642	954	838	491	394	788	709	410	317	166	129	81	77
LIFE SCIENTISTS (TOTAL)	2650	4151	3933	750	782	3067	3116	433	499	1084	817	317	283
AGRICULTURAL SCIENTISTS	2651	561	599	93	80	505	548	70	61	56	51	23	19
BIOLOGICAL SCIENTISTS	2652	2742	2747	463	511	2275	2332	274	319	467	415	189	192
MEDICAL SCIENTISTS	2653	262	251	69	83	135	145	57	59	127	106	12	24
OTHER LIFE SCIENTISTS	2654	586	336	125	108	152	91	32	60	434	245	93	48
PSYCHOLOGISTS (TOTAL)	2660	2683	2744	669	754	2028	2124	377	437	655	620	292	317
SOCIAL SCIENTISTS (TOTAL)	2670	6079	6038	1596	1762	4958	4946	1177	1313	1121	1092	419	449
ECONOMISTS	2671	1441	1432	522	569	1283	1285	454	496	158	147	68	73
POLITICAL SCIENTISTS	2672	1440	1381	306	347	1261	1227	242	276	179	154	64	71
SOCIOLOGISTS	2673	1706	1708	360	371	1250	1235	211	215	456	473	149	156
OTHER SOCIAL SCIENTISTS	2674	1492	1517	408	475	1164	1199	270	326	328	318	138	149
TOTAL	2600	22227	21842	6079	6321	18292	18362	4407	4618	3935	3480	1672	1703

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	2439	2191	1566	1398	873	793	1811.	48.	2.7
AERONAUTICAL & ASTRONAUTICAL	2711	30	32	19	16	11	16	22.	2.	9.1
CHEMICAL ENGINEERS	2712	115	139	81	93	38	46	93.	4.	4.3
CIVIL ENGINEERS	2713	552	523	381	338	171	185	436.	10.	2.3
ELECTRICAL ENGINEERS	2714	576	561	356	330	220	231	421.	16.	3.8
MECHANICAL ENGINEERS	2715	555	454	355	296	200	158	403.	10.	2.5
OTHER ENGINEERS	2716	607	482	374	325	233	157	436.	6.	1.4
PHYSICAL SCIENTISTS (TOTAL)	2720	3384	3597	2869	2974	515	623	3062.	165.	5.4
ASTRONOMERS	2721	60	53	51	45	9	8	53.	2.	3.8
CHEMISTS	2722	1919	2033	1624	1669	295	364	1739.	81.	4.7
PHYSICISTS	2723	1265	1374	1079	1152	186	222	1146.	40.	3.5
OTHER PHYSICAL SCIENTISTS	2724	140	137	115	108	25	29	124.	42.	33.9
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1168	1252	1000	1039	168	213	1058.	76.	7.2
ATMOSPHERIC SCIENTISTS	2731	41	53	33	43	8	10	35.	5.	14.3
EARTH SCIENTISTS	2732	945	1020	816	857	129	163	863.	51.	5.9
OCEANOGRAPHERS	2733	56	57	49	46	7	11	51.	14.	27.5
OTHER ENVIRONMENTAL SCIENTISTS	2734	126	122	102	93	24	29	109.	6.	5.5
MATHEMATICAL SCIENTISTS (TOTAL)	2740	5387	5110	3879	3716	1508	1394	4484.	102.	2.3
MATHEMATICIANS	2741	3942	3878	2925	2878	1017	1000	3347.	64.	1.9
COMPUTER SCIENTISTS	2742	1445	1232	954	838	491	394	1137.	38.	3.3
LIFE SCIENTISTS (TOTAL)	2750	4901	4715	4151	3933	750	782	4417.	216.	4.9
AGRICULTURAL SCIENTISTS	2751	654	679	561	599	93	80	594.	56.	9.4
BIOLOGICAL SCIENTISTS	2752	3205	3258	2742	2747	463	511	2896.	141.	4.9
MEDICAL SCIENTISTS	2753	331	334	262	251	69	83	287.	10.	3.5
OTHER LIFE SCIENTISTS	2754	711	444	586	336	125	108	640.	9.	1.4
PSYCHOLOGISTS (TOTAL)	2760	3352	3498	2683	2744	669	754	2869.	50.	1.7
SOCIAL SCIENTISTS (TOTAL)	2770	7675	7800	6079	6038	1596	1762	6604.	163.	2.5
ECONOMISTS	2771	1963	2001	1441	1432	522	569	1616.	26.	1.6
POLITICAL SCIENTISTS	2772	1746	1728	1440	1381	306	347	1534.	34.	2.2
SOCIOLOGISTS	2773	2066	2079	1706	1708	360	371	1822.	44.	2.4
OTHER SOCIAL SCIENTISTS	2774	1900	1992	1492	1517	408	475	1631.	58.	3.6
TOTAL	2700	28306	28163	22227	21842	6079	6321	24304.	820.	3.4

TABLE A11

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PRIVATE MASTER'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	6013	5644	4582	4391	1431	1253
FIRST PROFESSIONAL	2220	168	186	74	66	94	120
MASTER'S	2230	3629	3333	1504	1448	2125	1885
BACHELOR'S OR THE EQUIVALENT	2240	496	495	172	161	324	334
TOTAL	2200	10306	9658	6332	6066	3974	3592

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	617	576	310	349	603	568	305	342	14	8	5	7
AERONAUTICAL & ASTRONAUTICAL	2611	7	6	3	3	6	5	3	3	1	1	0	0
CHEMICAL ENGINEERS	2612	34	37	17	18	32	37	17	18	2	0	0	0
CIVIL ENGINEERS	2613	98	93	35	58	96	93	35	58	2	0	0	0
ELECTRICAL ENGINEERS	2614	214	198	105	105	212	195	104	103	2	3	1	2
MECHANICAL ENGINEERS	2615	197	183	98	96	194	182	95	92	3	1	3	4
OTHER ENGINEERS	2616	67	59	52	69	63	56	51	68	4	3	1	1
PHYSICAL SCIENTISTS (TOTAL)	2620	1038	1001	356	369	937	899	265	272	101	102	91	97
ASTRONOMERS	2621	9	9	5	4	8	8	4	3	1	1	1	1
CHEMISTS	2622	605	586	181	209	521	500	116	138	84	86	65	71
PHYSICISTS	2623	410	395	148	140	396	381	131	123	14	14	17	17
OTHER PHYSICAL SCIENTISTS	2624	14	11	22	16	12	10	14	8	2	1	8	8
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	109	105	51	47	97	92	42	43	12	13	9	4
ATMOSPHERIC SCIENTISTS	2631	2	2	7	6	2	2	7	6	0	0	0	0
EARTH SCIENTISTS	2632	94	97	27	32	86	86	22	29	8	11	5	3
OCEANOGRAPHERS	2633	3	0	2	1	1	0	2	1	2	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	10	6	15	8	8	4	11	7	2	2	4	1
MATHEMATICAL SCIENTISTS (TOTAL)	2640	973	929	759	615	812	767	573	460	161	162	186	155
MATHEMATICIANS	2641	740	710	483	419	616	581	335	293	124	129	148	126
COMPUTER SCIENTISTS	2642	233	219	276	196	196	186	238	167	37	33	38	29
LIFE SCIENTISTS (TOTAL)	2650	1136	1067	535	488	803	776	280	280	333	291	255	208
AGRICULTURAL SCIENTISTS	2651	27	26	8	2	27	26	7	2	0	0	1	0
BIOLOGICAL SCIENTISTS	2652	768	766	317	308	599	598	194	198	169	168	123	110
MEDICAL SCIENTISTS	2653	190	215	127	128	133	127	57	58	57	88	70	70
OTHER LIFE SCIENTISTS	2654	151	60	83	50	44	25	22	22	107	35	61	28
PSYCHOLOGISTS (TOTAL)	2660	762	738	744	578	552	525	457	360	210	213	287	218
SOCIAL SCIENTISTS (TOTAL)	2670	1697	1650	1219	1146	1342	1316	907	860	355	334	312	286
ECONOMISTS	2671	531	509	437	412	471	458	368	347	60	51	69	65
POLITICAL SCIENTISTS	2672	467	442	223	232	394	374	173	181	73	68	50	51
SOCIOLOGISTS	2673	498	469	352	350	360	338	237	238	138	131	115	112
OTHER SOCIAL SCIENTISTS	2674	201	230	207	152	117	146	129	94	84	84	78	58
TOTAL	2600	6332	6066	3974	3592	5146	4943	2829	2617	1186	1123	1145	975

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	927	925	617	576	310	349	724.	32.	4.4
AERONAUTICAL & ASTRONAUTICAL	2711	10	9	7	6	3	3	10.	3.	30.0
CHEMICAL ENGINEERS	2712	51	55	34	37	17	18	42.	2.	4.8
CIVIL ENGINEERS	2713	133	151	98	93	35	58	112.	7.	6.3
ELECTRICAL ENGINEERS	2714	319	303	214	198	105	105	247.	6.	2.4
MECHANICAL ENGINEERS	2715	295	279	197	183	98	96	232.	8.	3.4
OTHER ENGINEERS	2716	119	128	67	59	52	69	81.	6.	7.4
PHYSICAL SCIENTISTS (TOTAL)	2720	1394	1370	1038	1001	356	369	1198.	44.	3.7
ASTRONOMERS	2721	14	13	9	9	5	4	12.	0.	0.0
CHEMISTS	2722	786	795	605	586	181	209	686.	24.	3.5
PHYSICISTS	2723	558	535	410	395	148	140	480.	20.	4.2
OTHER PHYSICAL SCIENTISTS	2724	36	27	14	11	22	16	20.	0.	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	160	152	109	105	51	47	134.	5.	3.7
ATMOSPHERIC SCIENTISTS	2731	9	8	2	2	7	6	8.	1.	12.5
EARTH SCIENTISTS	2732	121	129	94	97	27	32	104.	1.	1.0
OCEANOGRAPHERS	2733	5	1	3	0	2	1	5.	0.	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	25	14	10	6	15	8	17.	3.	17.6
MATHEMATICAL SCIENTISTS (TOTAL)	2740	1732	1544	973	929	759	615	1301.	20.	1.5
MATHEMATICIANS	2741	1223	1129	740	710	483	419	953.	8.	0.8
COMPUTER SCIENTISTS	2742	509	415	233	219	276	196	349.	11.	3.2
LIFE SCIENTISTS (TOTAL)	2750	1671	1555	1136	1067	535	488	1341.	42.	3.1
AGRICULTURAL SCIENTISTS	2751	35	28	27	26	8	2	31.	5.	16.1
BIOLOGICAL SCIENTISTS	2752	1085	1074	768	766	317	308	883.	29.	3.3
MEDICAL SCIENTISTS	2753	317	343	190	215	127	128	243.	5.	2.1
OTHER LIFE SCIENTISTS	2754	234	110	151	60	83	50	184.	3.	1.6
PSYCHOLOGISTS (TOTAL)	2760	1506	1316	762	738	744	578	1066.	9.	0.8
SOCIAL SCIENTISTS (TOTAL)	2770	2916	2796	1697	1650	1219	1146	2151.	33.	1.5
ECONOMISTS	2771	968	921	531	509	437	412	703.	10.	1.4
POLITICAL SCIENTISTS	2772	690	674	467	442	223	232	536.	9.	1.7
SOCIOLOGISTS	2773	850	819	498	469	352	350	620.	11.	1.8
OTHER SOCIAL SCIENTISTS	2774	408	382	201	230	207	152	292.	3.	1.0
TOTAL	2700	10306	9658	6332	6066	3974	3592	7915.	185.	2.3

TABLE A1J

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
BACHELOR'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	15402	14967	13511	13349	1891	1618
FIRST PROFESSIONAL	2220	523	533	206	222	317	311
MASTER'S	2230	10925	10377	6954	6757	3971	3620
BACHELOR'S OR THE EQUIVALENT	2240	1943	1716	953	886	990	830
TOTAL	2200	28793	27593	21624	21214	7169	6379

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	1331	1249	419	391	1311	1226	407	375	20	23	12	16
AERONAUTICAL & ASTRONAUTICAL	2611	139	131	30	32	135	129	27	29	4	2	3	3
CHEMICAL ENGINEERS	2612	18	25	9	13	17	24	8	13	1	1	1	0
CIVIL ENGINEERS	2613	217	237	50	44	213	231	50	44	4	6	0	0
ELECTRICAL ENGINEERS	2614	383	345	164	140	379	339	163	134	4	6	1	6
MECHANICAL ENGINEERS	2615	296	294	79	77	295	292	77	75	1	2	2	2
OTHER ENGINEERS	2616	278	217	87	85	272	211	82	80	6	6	5	5
PHYSICAL SCIENTISTS (TOTAL)	2620	3668	3616	720	681	3228	3184	533	492	440	432	187	189
ASTRONOMERS	2621	36	25	26	18	32	22	20	16	4	3	6	2
CHEMISTS	2622	2239	2227	451	421	1884	1873	304	270	355	354	147	151
PHYSICISTS	2623	1256	1268	218	217	1190	1204	190	189	66	64	28	28
OTHER PHYSICAL SCIENTISTS	2624	137	96	25	25	122	85	19	17	15	11	6	8
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	559	554	147	139	512	516	119	113	47	38	28	26
ATMOSPHERIC SCIENTISTS	2631	15	14	14	13	15	14	14	13	0	0	0	0
EARTH SCIENTISTS	2632	408	427	112	104	373	400	87	82	35	27	25	22
OCEANOGRAPHERS	2633	51	39	5	4	47	35	5	3	4	4	0	1
OTHER ENVIRONMENTAL SCIENTISTS	2634	85	74	16	18	77	67	13	15	8	7	3	3
MATHEMATICAL SCIENTISTS (TOTAL)	2640	3718	3583	1544	1291	2996	2900	1064	855	722	683	480	436
MATHEMATICIANS	2641	2979	2944	1104	1004	2369	2351	686	611	610	593	418	393
COMPUTER SCIENTISTS	2642	739	639	440	287	627	549	378	244	112	90	62	43
LIFE SCIENTISTS (TOTAL)	2650	4278	4151	1340	1143	2881	2927	799	709	1397	1224	541	434
AGRICULTURAL SCIENTISTS	2651	220	232	35	26	198	211	27	22	22	21	8	4
BIOLOGICAL SCIENTISTS	2652	3147	3204	759	685	2415	2448	416	381	732	756	343	304
MEDICAL SCIENTISTS	2653	298	373	389	337	174	198	316	276	124	175	73	61
OTHER LIFE SCIENTISTS	2654	613	342	157	95	94	70	40	30	519	272	117	65
PSYCHOLOGISTS (TOTAL)	2660	2389	2391	991	883	1797	1793	590	535	592	598	401	348
SOCIAL SCIENTISTS (TOTAL)	2670	5681	5670	2008	1851	4541	4570	1474	1356	1140	1100	534	495
ECONOMISTS	2671	1657	1586	574	530	1457	1413	509	465	200	173	65	65
POLITICAL SCIENTISTS	2672	1422	1412	388	342	1233	1230	318	271	189	182	70	71
SOCIOLOGISTS	2673	1820	1804	667	636	1274	1296	390	391	546	508	277	245
OTHER SOCIAL SCIENTISTS	2674	782	868	379	343	577	631	257	229	205	237	122	114
TOTAL	2600	21624	21214	7169	6379	17266	17116	4986	4435	4358	4098	2183	1944

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	1750	1640	1331	1249	419	391	1520.	35.	2.3
AERONAUTICAL & ASTRONAUTICAL	2711	169	163	139	131	30	32	149.	5.	3.4
CHEMICAL ENGINEERS	2712	27	38	18	25	9	13	25.	0.	0.0
CIVIL ENGINEERS	2713	267	281	217	237	50	44	240.	5.	2.1
ELECTRICAL ENGINEERS	2714	547	485	383	345	164	140	458.	9.	2.0
MECHANICAL ENGINEERS	2715	375	371	296	294	79	77	335.	7.	2.1
OTHER ENGINEERS	2716	365	302	278	217	87	85	314.	8.	2.5
PHYSICAL SCIENTISTS (TOTAL)	2720	4388	4297	3668	3616	720	681	4055.	129.	3.2
ASTRONOMERS	2721	62	43	36	25	26	18	45.	0.	0.0
CHEMISTS	2722	2690	2648	2239	2227	451	421	2483.	79.	3.2
PHYSICISTS	2723	1474	1485	1256	1268	218	217	1377.	48.	3.5
OTHER PHYSICAL SCIENTISTS	2724	162	121	137	96	25	25	150.	3.	2.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	706	693	559	554	147	139	641.	22.	3.4
ATMOSPHERIC SCIENTISTS	2731	29	27	15	14	14	13	20.	0.	0.0
EARTH SCIENTISTS	2732	520	531	408	427	112	104	473.	8.	1.7
OCEANOGRAPHERS	2733	56	43	51	39	5	4	55.	7.	12.7
OTHER ENVIRONMENTAL SCIENTISTS	2734	101	92	85	74	16	18	92.	7.	7.6
MATHEMATICAL SCIENTISTS (TOTAL)	2740	5262	4874	3718	3583	1544	1291	4447.	80.	1.8
MATHEMATICIANS	2741	4083	3948	2979	2944	1104	1004	3499.	59.	1.7
COMPUTER SCIENTISTS	2742	1179	926	739	639	440	287	948.	20.	2.1
LIFE SCIENTISTS (TOTAL)	2750	5618	5294	4278	4151	1340	1143	4889.	179.	3.7
AGRICULTURAL SCIENTISTS	2751	255	258	220	232	35	26	241.	31.	12.9
BIOLOGICAL SCIENTISTS	2752	3906	3889	3147	3204	759	685	3524.	135.	3.8
MEDICAL SCIENTISTS	2753	687	710	298	373	389	337	445.	7.	1.6
OTHER LIFE SCIENTISTS	2754	770	437	613	342	157	95	679.	6.	0.9
PSYCHOLOGISTS (TOTAL)	2760	3380	3274	2389	2391	991	883	2823.	60.	2.1
SOCIAL SCIENTISTS (TOTAL)	2770	7689	7521	5681	5670	2008	1851	6508.	90.	1.4
ECONOMISTS	2771	2231	2116	1657	1586	574	530	1895.	24.	1.3
POLITICAL SCIENTISTS	2772	1810	1754	1422	1412	388	342	1595.	16.	1.0
SOCIOLOGISTS	2773	2487	2440	1820	1804	667	636	2087.	38.	1.8
OTHER SOCIAL SCIENTISTS	2774	1161	1211	782	868	379	343	931.	13.	1.4
TOTAL	2700	28793	27593	21624	21214	7169	6379	24883.	595.	2.4

TABLE A1K

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PUBLIC BACHELOR'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	4207	4166	3848	3874	359	292
FIRST PROFESSIONAL	2220	72	96	52	60	20	36
MASTER'S	2230	3639	3557	2812	2801	827	756
BACHELOR'S OR THE EQUIVALENT	2240	651	489	373	308	278	181
TOTAL	2200	8569	8308	7085	7043	1484	1265

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	757	718	94	83	745	703	91	78	12	15	3	5
AERONAUTICAL & ASTRONAUTICAL	2611	84	84	16	16	81	83	13	13	3	1	3	3
CHEMICAL ENGINEERS	2612	2	6	0	2	2	6	0	2	0	0	0	0
CIVIL ENGINEERS	2613	132	134	19	14	129	129	19	14	3	5	0	0
ELECTRICAL ENGINEERS	2614	200	197	29	28	197	192	29	27	3	5	0	1
MECHANICAL ENGINEERS	2615	186	186	11	13	185	185	11	12	1	1	0	1
OTHER ENGINEERS	2616	153	111	19	10	151	108	19	10	2	3	0	0
PHYSICAL SCIENTISTS (TOTAL)	2620	1102	1047	139	117	1014	966	109	89	88	81	30	28
ASTRONOMERS	2621	7	5	1	0	5	4	1	0	2	1	0	0
CHEMISTS	2622	592	585	100	78	529	521	74	57	63	64	26	21
PHYSICISTS	2623	412	416	31	32	395	404	28	27	17	12	3	5
OTHER PHYSICAL SCIENTISTS	2624	91	41	7	7	85	37	6	5	6	4	1	2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	276	283	44	43	257	267	36	40	19	16	8	3
ATMOSPHERIC SCIENTISTS	2631	12	10	8	8	12	10	8	8	0	0	0	0
EARTH SCIENTISTS	2632	163	189	29	27	152	180	23	25	11	9	6	2
OCEANOGRAPHERS	2633	45	32	0	0	42	29	0	0	3	3	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	56	52	7	8	51	48	5	7	5	4	2	1
MATHEMATICAL SCIENTISTS (TOTAL)	2640	1287	1291	369	301	1066	1082	254	208	221	209	115	93
MATHEMATICIANS	2641	1017	1013	292	259	831	830	186	170	186	183	106	89
COMPUTER SCIENTISTS	2642	270	278	77	42	235	252	68	38	35	26	9	4
LIFE SCIENTISTS (TOTAL)	2650	1244	1282	274	226	885	926	165	124	359	356	109	102
AGRICULTURAL SCIENTISTS	2651	151	163	8	4	133	146	5	4	18	17	3	0
BIOLOGICAL SCIENTISTS	2652	842	883	175	149	674	700	112	93	168	183	63	56
MEDICAL SCIENTISTS	2653	47	108	27	42	21	34	25	17	26	74	2	25
OTHER LIFE SCIENTISTS	2654	204	128	64	31	57	46	23	10	147	82	41	21
PSYCHOLOGISTS (TOTAL)	2660	710	722	175	131	542	547	108	83	168	175	67	48
SOCIAL SCIENTISTS (TOTAL)	2670	1709	1700	389	364	1394	1405	280	259	315	295	109	105
ECONOMISTS	2671	418	397	73	88	370	361	66	75	48	36	7	13
POLITICAL SCIENTISTS	2672	424	427	70	61	365	370	63	51	59	57	7	10
SOCIOLOGISTS	2673	508	495	120	102	378	383	70	59	130	112	50	43
OTHER SOCIAL SCIENTISTS	2674	359	381	126	113	281	291	81	74	78	90	45	39
TOTAL	2600	7085	7043	1484	1265	5903	5896	1043	881	1182	1147	441	384

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	851	801	757	718	94	83	787.	22.	2.8
AERONAUTICAL & ASTRONAUTICAL	2711	100	100	84	84	16	16	89.	5.	5.6
CHEMICAL ENGINEERS	2712	2	8	2	6	0	2	2.	0.	0.0
CIVIL ENGINEERS	2713	151	148	132	134	19	14	137.	5.	3.6
ELECTRICAL ENGINEERS	2714	229	225	200	197	29	28	211.	4.	1.9
MECHANICAL ENGINEERS	2715	197	199	186	186	11	13	190.	6.	3.2
OTHER ENGINEERS	2716	172	121	153	111	19	10	159.	2.	1.3
PHYSICAL SCIENTISTS (TOTAL)	2720	1241	1164	1102	1047	139	117	1176.	49.	4.2
ASTRONOMERS	2721	8	5	7	5	1	0	8.	0.	0.0
CHEMISTS	2722	692	663	592	585	100	78	643.	29.	4.5
PHYSICISTS	2723	443	448	412	416	31	32	431.	18.	4.2
OTHER PHYSICAL SCIENTISTS	2724	98	48	91	41	7	7	94.	3.	3.2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	320	326	276	283	44	43	295.	15.	5.1
ATMOSPHERIC SCIENTISTS	2731	20	18	12	10	8	8	16.	0.	0.0
EARTH SCIENTISTS	2732	192	216	163	189	29	27	175.	4.	2.3
OCEANOGRAPHERS	2733	45	32	45	32	0	0	45.	4.	8.9
OTHER ENVIRONMENTAL SCIENTISTS	2734	63	60	56	52	7	8	59.	7.	11.9
MATHEMATICAL SCIENTISTS (TOTAL)	2740	1656	1592	1287	1291	369	301	1436.	30.	2.1
MATHEMATICIANS	2741	1309	1272	1017	1013	292	259	1136.	23.	2.0
COMPUTER SCIENTISTS	2742	347	320	270	278	77	42	300.	7.	2.3
LIFE SCIENTISTS (TOTAL)	2750	1518	1508	1244	1282	274	226	1372.	99.	7.2
AGRICULTURAL SCIENTISTS	2751	159	167	151	163	8	4	154.	31.	20.1
BIOLOGICAL SCIENTISTS	2752	1017	1032	842	883	175	149	922.	62.	6.7
MEDICAL SCIENTISTS	2753	74	150	47	108	27	42	63.	0.	0.0
OTHER LIFE SCIENTISTS	2754	268	159	204	128	64	31	232.	6.	2.6
PSYCHOLOGISTS (TOTAL)	2760	885	853	710	722	175	131	787.	28.	3.6
SOCIAL SCIENTISTS (TOTAL)	2770	2098	2064	1709	1700	389	364	1828.	45.	2.5
ECONOMISTS	2771	491	485	418	397	73	88	440.	12.	2.7
POLITICAL SCIENTISTS	2772	494	488	424	427	70	61	441.	5.	1.1
SOCIOLOGISTS	2773	628	597	508	495	120	102	544.	26.	4.8
OTHER SOCIAL SCIENTISTS	2774	485	494	359	381	126	113	403.	1.	0.2
TOTAL	2700	8569	8308	7085	7043	1484	1265	7681.	289.	3.8

TABLE A1L

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PRIVATE BACHELOR'S GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	11195	10801	9663	9475	1532	1326
FIRST PROFESSIONAL	2220	451	437	154	162	297	275
MASTER'S	2230	7286	6820	4142	3956	3144	2864
BACHELOR'S OR THE EQUIVALENT	2240	1292	1227	580	578	712	649
TOTAL	2200	20224	19285	14539	14171	5685	5114

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	574	531	325	308	566	523	316	297	8	8	9	11
AERONAUTICAL & ASTRONAUTICAL	2611	55	47	14	16	54	46	14	16	1	1	0	0
CHEMICAL ENGINEERS	2612	16	19	9	11	15	18	8	11	1	1	1	0
CIVIL ENGINEERS	2613	85	103	31	30	84	102	31	30	1	1	0	0
ELECTRICAL ENGINEERS	2614	183	148	135	112	182	147	134	107	1	1	1	5
MECHANICAL ENGINEERS	2615	110	108	68	64	110	107	66	63	0	1	2	1
OTHER ENGINEERS	2616	125	106	68	75	121	103	63	70	4	3	5	5
PHYSICAL SCIENTISTS (TOTAL)	2620	2566	2569	581	564	2214	2218	424	403	352	351	157	161
ASTRONOMERS	2621	29	20	25	18	27	18	19	16	2	2	6	2
CHEMISTS	2622	1647	1642	351	343	1355	1352	230	213	292	290	121	130
PHYSICISTS	2623	844	852	187	185	795	800	162	162	49	52	25	23
OTHER PHYSICAL SCIENTISTS	2624	46	55	18	18	37	48	13	12	9	7	5	6
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	283	271	103	96	255	249	83	73	28	22	20	23
ATMOSPHERIC SCIENTISTS	2631	3	4	6	5	3	4	6	5	0	0	0	0
EARTH SCIENTISTS	2632	245	238	83	77	221	220	64	57	24	18	19	20
OCEANOGRAPHERS	2633	6	7	5	4	5	6	5	3	1	1	0	1
OTHER ENVIRONMENTAL SCIENTISTS	2634	29	22	9	10	26	19	8	8	3	3	1	2
MATHEMATICAL SCIENTISTS (TOTAL)	2640	2431	2292	1175	990	1930	1818	810	647	501	474	365	343
MATHEMATICIANS	2641	1962	1931	812	745	1538	1521	500	441	424	410	312	304
COMPUTER SCIENTISTS	2642	469	361	363	245	392	297	310	206	77	64	53	39
LIFE SCIENTISTS (TOTAL)	2650	3034	2869	1066	917	1996	2001	634	585	1038	868	432	332
AGRICULTURAL SCIENTISTS	2651	69	69	27	22	65	65	22	18	4	4	5	4
BIOLOGICAL SCIENTISTS	2652	2305	2321	584	536	1741	1748	304	288	564	573	280	248
MEDICAL SCIENTISTS	2653	251	265	362	295	153	164	291	259	98	101	71	36
OTHER LIFE SCIENTISTS	2654	409	214	93	64	37	24	17	20	372	190	76	44
PSYCHOLOGISTS (TOTAL)	2660	1679	1669	816	752	1255	1246	482	452	424	423	334	300
SOCIAL SCIENTISTS (TOTAL)	2670	3972	3970	1619	1487	3147	3165	1194	1097	825	805	425	390
ECONOMISTS	2671	1239	1189	501	442	1087	1052	443	390	152	137	58	52
POLITICAL SCIENTISTS	2672	998	985	318	281	868	860	255	220	130	125	63	61
SOCIOLOGISTS	2673	1312	1309	547	534	896	913	320	332	416	396	227	202
OTHER SOCIAL SCIENTISTS	2674	423	487	253	230	296	340	176	155	127	147	77	75
TOTAL	2600	14539	14171	5685	5114	11363	11220	3943	3554	3176	2951	1742	1560

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	899	839	574	531	325	308	732.	12.	1.6
AERONAUTICAL & ASTRONAUTICAL	2711	69	63	55	47	14	16	60.	0.	0.0
CHEMICAL ENGINEERS	2712	25	30	16	19	9	11	23.	0.	0.0
CIVIL ENGINEERS	2713	116	133	85	103	31	30	103.	0.	0.0
ELECTRICAL ENGINEERS	2714	318	260	183	148	135	112	247.	5.	2.0
MECHANICAL ENGINEERS	2715	178	172	110	108	68	64	144.	1.	0.7
OTHER ENGINEERS	2716	193	181	125	106	68	75	155.	7.	4.5
PHYSICAL SCIENTISTS (TOTAL)	2720	3147	3133	2566	2569	581	564	2879.	80.	2.8
ASTRONOMERS	2721	54	38	29	20	25	18	37.	0.	0.0
CHEMISTS	2722	1998	1985	1647	1642	351	343	1840.	50.	2.7
PHYSICISTS	2723	1031	1037	844	852	187	185	946.	30.	3.2
OTHER PHYSICAL SCIENTISTS	2724	64	73	46	55	18	18	56.	0.	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	386	367	283	271	103	96	346.	7.	2.0
ATMOSPHERIC SCIENTISTS	2731	9	9	3	4	6	5	5.	0.	0.0
EARTH SCIENTISTS	2732	328	315	245	238	83	77	298.	4.	1.3
OCEANOGRAPHERS	2733	11	11	6	7	5	4	10.	3.	30.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	38	32	29	22	9	10	33.	1.	3.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	3606	3282	2431	2292	1175	990	3011.	50.	1.7
MATHEMATICIANS	2741	2774	2676	1962	1931	812	745	2363.	36.	1.5
COMPUTER SCIENTISTS	2742	832	606	469	361	363	245	648.	14.	2.2
LIFE SCIENTISTS (TOTAL)	2750	4100	3786	3034	2869	1066	917	3517.	80.	2.3
AGRICULTURAL SCIENTISTS	2751	96	91	69	69	27	22	87.	0.	0.0
BIOLOGICAL SCIENTISTS	2752	2889	2857	2305	2321	584	536	2602.	73.	2.8
MEDICAL SCIENTISTS	2753	613	560	251	265	362	295	382.	7.	1.8
OTHER LIFE SCIENTISTS	2754	502	278	409	214	93	64	446.	0.	0.0
PSYCHOLOGISTS (TOTAL)	2760	2495	2421	1679	1669	816	752	2036.	31.	1.5
SOCIAL SCIENTISTS (TOTAL)	2770	5591	5457	3972	3970	1619	1487	4680.	45.	1.0
ECONOMISTS	2771	1740	1631	1239	1189	501	442	1455.	12.	0.8
POLITICAL SCIENTISTS	2772	1316	1266	998	985	318	281	1154.	10.	0.9
SOCIOLOGISTS	2773	1859	1843	1312	1309	547	534	1543.	12.	0.8
OTHER SOCIAL SCIENTISTS	2774	676	717	423	487	253	230	528.	12.	2.3
TOTAL	2700	20224	19285	14539	14171	5685	5114	17202.	306.	1.8

TABLE A1M

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
NON SCIENCE DEGREE-GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	7349	6917	5023	4871	2326	2046
FIRST PROFESSIONAL	2220	795	682	379	311	416	371
MASTER'S	2230	32569	30359	19599	18914	12970	11445
BACHELOR'S OR THE EQUIVALENT	2240	8825	7233	3777	3271	5048	3962
TOTAL	2200	49538	45191	28778	27367	20760	17824

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	3283	2916	2618	2149	3216	2852	2556	2110	67	64	62	39
AERONAUTICAL & ASTRONAUTICAL	2611	65	58	62	39	63	54	58	37	2	4	4	2
CHEMICAL ENGINEERS	2612	60	60	35	29	55	57	34	28	5	3	1	1
CIVIL ENGINEERS	2613	593	536	398	373	585	526	393	370	8	10	5	3
ELECTRICAL ENGINEERS	2614	1011	908	842	689	1000	898	821	678	11	10	21	11
MECHANICAL ENGINEERS	2615	738	654	484	409	723	641	474	403	15	13	10	6
OTHER ENGINEERS	2616	816	700	797	610	790	676	776	594	26	24	21	16
PHYSICAL SCIENTISTS (TOTAL)	2620	3679	3626	1909	1659	3210	3157	1518	1321	469	469	391	338
ASTRONOMERS	2621	97	85	78	71	89	77	71	65	8	8	7	6
CHEMISTS	2622	2039	2023	1108	945	1671	1659	802	674	368	364	306	271
PHYSICISTS	2623	1279	1237	542	486	1206	1166	501	455	73	71	41	31
OTHER PHYSICAL SCIENTISTS	2624	264	281	181	157	244	255	144	127	20	26	37	30
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	692	715	333	286	629	658	285	250	63	57	48	36
ATMOSPHERIC SCIENTISTS	2631	23	35	24	27	20	31	24	27	3	4	0	0
EARTH SCIENTISTS	2632	553	518	216	200	502	477	181	173	51	41	35	27
OCEANOGRAPHERS	2633	42	43	36	26	39	41	31	24	3	2	5	2
OTHER ENVIRONMENTAL SCIENTISTS	2634	74	119	57	33	68	109	49	26	6	10	8	7
MATHEMATICAL SCIENTISTS (TOTAL)	2640	5831	5489	6470	5396	4486	4253	4649	3900	1345	1236	1821	1496
MATHEMATICIANS	2641	4462	4321	4377	3833	3396	3309	2896	2591	1066	1012	1481	1242
COMPUTER SCIENTISTS	2642	1369	1168	2093	1563	1090	944	1753	1309	279	224	340	254
LIFE SCIENTISTS (TOTAL)	2650	7553	6855	3223	2704	4358	4218	1846	1583	3195	2637	1377	1121
AGRICULTURAL SCIENTISTS	2651	1027	1043	417	397	979	993	346	326	48	50	71	71
BIOLOGICAL SCIENTISTS	2652	3866	3786	1631	1410	2852	2788	1047	906	1014	998	584	504
MEDICAL SCIENTISTS	2653	1138	1240	686	667	258	284	304	284	880	956	382	383
OTHER LIFE SCIENTISTS	2654	1522	786	489	230	269	153	149	67	1253	633	340	163
PSYCHOLOGISTS (TOTAL)	2660	2721	2752	2286	2084	1819	1811	1364	1226	902	941	922	858
SOCIAL SCIENTISTS (TOTAL)	2670	5019	5014	3921	3546	4034	4028	3011	2709	985	986	910	837
ECONOMISTS	2671	997	993	941	821	883	870	810	706	114	123	131	115
POLITICAL SCIENTISTS	2672	1163	1177	635	613	1003	1017	534	514	160	160	101	99
SOCIOLOGISTS	2673	1496	1517	1220	1137	1085	1103	819	751	411	414	401	386
OTHER SOCIAL SCIENTISTS	2674	1363	1327	1125	975	1063	1038	848	738	300	289	277	237
TOTAL	2600	28778	27367	20760	17824	21752	20977	15229	13099	7026	6390	5531	4725

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	5901	5065	3283	2916	2618	2149	4417.	4.	0.1
AERONAUTICAL & ASTRONAUTICAL	2711	127	97	65	58	62	39	86.	0.	0.0
CHEMICAL ENGINEERS	2712	95	89	60	60	35	29	76.	1.	1.3
CIVIL ENGINEERS	2713	991	909	593	536	398	373	770.	2.	0.3
ELECTRICAL ENGINEERS	2714	1853	1597	1011	908	842	689	1376.	1.	0.1
MECHANICAL ENGINEERS	2715	1222	1063	738	654	484	409	953.	1.	0.1
OTHER ENGINEERS	2716	1613	1310	816	700	797	610	1155.	1.	0.1
PHYSICAL SCIENTISTS (TOTAL)	2720	5588	5285	3679	3626	1909	1659	4628.	23.	0.5
ASTRONOMERS	2721	175	156	97	85	78	71	130.	1.	0.8
CHEMISTS	2722	3147	2968	2039	2023	1108	945	2591.	17.	0.7
PHYSICISTS	2723	1821	1723	1279	1237	542	486	1557.	6.	0.4
OTHER PHYSICAL SCIENTISTS	2724	445	438	264	281	181	157	351.	0.	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	1025	1001	692	715	333	286	864.	1.	0.1
ATMOSPHERIC SCIENTISTS	2731	47	62	23	35	24	27	36.	0.	0.0
EARTH SCIENTISTS	2732	769	718	553	518	216	200	670.	1.	0.1
OCEANOGRAPHERS	2733	78	69	42	43	36	26	63.	0.	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	131	152	74	119	57	33	95.	0.	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	12301	10885	5831	5489	6470	5396	8561.	26.	0.3
MATHEMATICIANS	2741	8839	8154	4462	4321	4377	3833	6408.	13.	0.2
COMPUTER SCIENTISTS	2742	3462	2731	1369	1168	2093	1563	2153.	14.	0.7
LIFE SCIENTISTS (TOTAL)	2750	10776	9559	7553	6855	3223	2704	9033.	36.	0.4
AGRICULTURAL SCIENTISTS	2751	1444	1440	1027	1043	417	397	1213.	2.	0.2
BIOLOGICAL SCIENTISTS	2752	5497	5196	3866	3786	1631	1410	4698.	31.	0.7
MEDICAL SCIENTISTS	2753	1824	1907	1138	1240	686	667	1393.	1.	0.1
OTHER LIFE SCIENTISTS	2754	2011	1016	1522	786	489	230	1728.	2.	0.1
PSYCHOLOGISTS (TOTAL)	2760	5007	4836	2721	2752	2286	2084	3661.	9.	0.2
SOCIAL SCIENTISTS (TOTAL)	2770	8940	8560	5019	5014	3921	3546	6690.	12.	0.2
ECONOMISTS	2771	1938	1814	997	993	941	821	1405.	2.	0.1
POLITICAL SCIENTISTS	2772	1798	1790	1163	1177	635	613	1455.	2.	0.1
SOCIOLOGISTS	2773	2716	2654	1496	1517	1220	1137	2056.	5.	0.2
OTHER SOCIAL SCIENTISTS	2774	2488	2302	1363	1327	1125	975	1774.	4.	0.2
TOTAL	2700	49538	45191	28778	27367	20760	17824	37853.	113.	0.3

TABLE A1N

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PUBLIC NON SCIENCE DEGREE-GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	6756	6322	4572	4433	2184	1889
FIRST PROFESSIONAL	2220	753	639	371	303	382	336
MASTER'S	2230	30806	28574	18577	17898	12229	10676
BACHELOR'S OR THE EQUIVALENT	2240	8512	6936	3623	3123	4889	3813
TOTAL	2200	46827	42471	27143	25757	19684	16714

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	3219	2838	2565	2067	3156	2779	2504	2028	63	59	61	39
AERONAUTICAL & ASTRONAUTICAL	2611	61	55	61	38	59	51	57	36	2	4	4	2
CHEMICAL ENGINEERS	2612	58	58	35	29	54	56	34	28	4	2	1	1
CIVIL ENGINEERS	2613	580	520	388	362	573	511	383	359	7	9	5	3
ELECTRICAL ENGINEERS	2614	996	886	826	663	985	877	806	652	11	9	20	11
MECHANICAL ENGINEERS	2615	716	630	464	375	702	618	454	369	14	12	10	6
OTHER ENGINEERS	2616	808	689	791	600	783	666	770	584	25	23	21	16
PHYSICAL SCIENTISTS (TOTAL)	2620	3440	3385	1785	1536	3007	2955	1429	1237	433	430	356	299
ASTRONOMERS	2621	91	79	76	69	86	74	69	63	5	5	7	6
CHEMISTS	2622	1897	1878	1039	879	1557	1543	761	640	340	335	278	239
PHYSICISTS	2623	1206	1165	504	446	1136	1097	463	415	70	68	41	31
OTHER PHYSICAL SCIENTISTS	2624	246	263	166	142	228	241	136	119	18	22	30	23
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	659	682	316	275	600	628	274	243	59	54	42	32
ATMOSPHERIC SCIENTISTS	2631	23	33	24	27	20	30	24	27	3	3	0	0
EARTH SCIENTISTS	2632	529	492	203	189	479	451	174	166	50	41	29	23
OCEANOGRAPHERS	2633	41	43	36	26	38	41	31	24	3	2	5	2
OTHER ENVIRONMENTAL SCIENTISTS	2634	66	114	53	33	63	106	45	26	3	8	8	7
MATHEMATICAL SCIENTISTS (TOTAL)	2640	5520	5187	6175	5095	4259	4028	4445	3675	1261	1159	1730	1420
MATHEMATICIANS	2641	4206	4067	4176	3623	3211	3125	2766	2446	995	942	1410	1177
COMPUTER SCIENTISTS	2642	1314	1120	1999	1472	1048	903	1679	1229	266	217	320	243
LIFE SCIENTISTS (TOTAL)	2650	7088	6424	2999	2501	4094	3957	1766	1497	2994	2467	1233	1004
AGRICULTURAL SCIENTISTS	2651	976	995	410	390	930	948	340	320	46	47	70	70
BIOLOGICAL SCIENTISTS	2652	3565	3492	1514	1298	2648	2585	987	843	917	907	527	455
MEDICAL SCIENTISTS	2653	1090	1186	618	605	250	275	294	271	840	911	324	334
OTHER LIFE SCIENTISTS	2654	1457	751	457	208	266	149	145	63	1191	602	312	145
PSYCHOLOGISTS (TOTAL)	2660	2537	2570	2153	1945	1701	1701	1280	1139	836	869	873	806
SOCIAL SCIENTISTS (TOTAL)	2670	4680	4671	3691	3295	3769	3761	2836	2518	911	910	855	777
ECONOMISTS	2671	897	893	864	740	793	783	745	633	104	110	119	107
POLITICAL SCIENTISTS	2672	1083	1100	594	565	936	952	498	469	147	148	96	96
SOCIOLOGISTS	2673	1388	1404	1145	1064	1012	1027	764	700	376	377	381	364
OTHER SOCIAL SCIENTISTS	2674	1312	1274	1088	926	1028	999	829	716	284	275	259	210
TOTAL	2600	27143	25757	19684	16714	20586	19809	14534	12337	6557	5948	5150	4377

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	5784	4905	3219	2838	2565	2067	4330.	3.	0.1
AERONAUTICAL & ASTRONAUTICAL	2711	122	93	61	55	61	38	82.	0.	0.0
CHEMICAL ENGINEERS	2712	93	87	58	58	35	29	74.	1.	1.4
CIVIL ENGINEERS	2713	968	882	580	520	388	362	752.	0.	0.0
ELECTRICAL ENGINEERS	2714	1822	1549	996	886	826	663	1354.	1.	0.1
MECHANICAL ENGINEERS	2715	1180	1005	716	630	464	375	922.	1.	0.1
OTHER ENGINEERS	2716	1599	1289	808	689	791	600	1145.	1.	0.1
PHYSICAL SCIENTISTS (TOTAL)	2720	5225	4921	3440	3385	1785	1536	4314.	11.	0.3
ASTRONOMERS	2721	167	148	91	79	76	69	122.	1.	0.8
CHEMISTS	2722	2936	2757	1897	1878	1039	879	2408.	6.	0.2
PHYSICISTS	2723	1710	1611	1206	1165	504	446	1460.	4.	0.3
OTHER PHYSICAL SCIENTISTS	2724	412	405	246	263	166	142	324.	0.	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	975	957	659	682	316	275	822.	1.	0.1
ATMOSPHERIC SCIENTISTS	2731	47	60	23	33	24	27	36.	0.	0.0
EARTH SCIENTISTS	2732	732	681	529	492	203	189	637.	1.	0.2
OCEANOGRAPHERS	2733	77	69	41	43	36	26	62.	0.	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	119	147	66	114	53	33	87.	0.	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	11695	10282	5520	5187	6175	5095	8107.	21.	0.3
MATHEMATICIANS	2741	8382	7690	4206	4067	4176	3623	6050.	8.	0.1
COMPUTER SCIENTISTS	2742	3313	2592	1314	1120	1999	1472	2057.	14.	0.7
LIFE SCIENTISTS (TOTAL)	2750	10087	8925	7088	6424	2999	2501	8461.	17.	0.2
AGRICULTURAL SCIENTISTS	2751	1386	1385	976	995	410	390	1157.	1.	0.1
BIOLOGICAL SCIENTISTS	2752	5079	4790	3565	3492	1514	1298	4330.	13.	0.3
MEDICAL SCIENTISTS	2753	1708	1791	1090	1186	618	605	1329.	1.	0.1
OTHER LIFE SCIENTISTS	2754	1914	959	1457	751	457	208	1645.	2.	0.1
PSYCHOLOGISTS (TOTAL)	2760	4690	4515	2537	2570	2153	1945	3422.	8.	0.2
SOCIAL SCIENTISTS (TOTAL)	2770	8371	7966	4680	4671	3691	3295	6231.	10.	0.2
ECONOMISTS	2771	1761	1633	897	893	864	740	1264.	2.	0.2
POLITICAL SCIENTISTS	2772	1677	1665	1083	1100	594	565	1353.	2.	0.1
SOCIOLOGISTS	2773	2533	2468	1388	1404	1145	1064	1902.	2.	0.1
OTHER SOCIAL SCIENTISTS	2774	2400	2200	1312	1274	1088	926	1712.	4.	0.2
TOTAL	2700	46827	42471	27143	25757	19684	16714	35687.	71.	0.2

TABLE A10

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
PRIVATE NON SCIENCE DEGREE-GRANTING UNIVERSITIES AND COLLEGES
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	593	595	451	438	142	157
FIRST PROFESSIONAL	2220	42	43	8	8	34	35
MASTER'S	2230	1763	1785	1022	1016	741	769
BACHELOR'S OR THE EQUIVALENT	2240	313	297	154	148	159	149
TOTAL	2200	2711	2720	1635	1610	1076	1110

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	64	78	53	82	60	73	52	82	4	5	1	0
AERONAUTICAL & ASTRONAUTICAL	2611	4	3	1	1	4	3	1	1	0	0	0	0
CHEMICAL ENGINEERS	2612	2	2	0	0	1	1	0	0	1	1	0	0
CIVIL ENGINEERS	2613	13	16	10	11	12	15	10	11	1	1	0	0
ELECTRICAL ENGINEERS	2614	15	22	16	26	15	21	15	26	0	1	1	0
MECHANICAL ENGINEERS	2615	22	24	20	34	21	23	20	34	1	1	0	0
OTHER ENGINEERS	2616	8	11	6	10	7	10	6	10	1	1	0	0
PHYSICAL SCIENTISTS (TOTAL)	2620	239	241	124	123	203	202	89	84	36	39	35	39
ASTRONOMERS	2621	6	6	2	2	3	3	2	2	3	3	0	0
CHEMISTS	2622	142	145	69	66	114	116	41	34	28	29	28	32
PHYSICISTS	2623	73	72	38	40	70	69	38	40	3	3	0	0
OTHER PHYSICAL SCIENTISTS	2624	18	18	15	15	16	14	8	8	2	4	7	7
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	33	33	17	11	29	30	11	7	4	3	6	4
ATMOSPHERIC SCIENTISTS	2631	0	2	0	0	0	1	0	0	0	1	0	0
EARTH SCIENTISTS	2632	24	26	13	11	23	26	7	7	1	0	6	4
OCEANOGRAPHERS	2633	1	0	0	0	1	0	0	0	0	0	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	8	5	4	0	5	3	4	0	3	2	0	0
MATHEMATICAL SCIENTISTS (TOTAL)	2640	311	302	295	301	227	225	204	225	84	77	91	76
MATHEMATICIANS	2641	256	254	201	210	185	184	130	145	71	70	71	65
COMPUTER SCIENTISTS	2642	55	48	94	91	42	41	74	80	13	7	20	11
LIFE SCIENTISTS (TOTAL)	2650	465	431	224	203	264	261	80	86	201	170	144	117
AGRICULTURAL SCIENTISTS	2651	51	48	7	7	49	45	6	6	2	3	1	1
BIOLOGICAL SCIENTISTS	2652	301	294	117	112	204	203	60	63	97	91	57	49
MEDICAL SCIENTISTS	2653	48	54	68	62	8	9	10	13	40	45	58	49
OTHER LIFE SCIENTISTS	2654	65	35	32	22	3	4	4	4	62	31	28	18
PSYCHOLOGISTS (TOTAL)	2660	184	182	133	139	118	110	84	87	66	72	49	52
SOCIAL SCIENTISTS (TOTAL)	2670	339	343	230	251	265	267	175	191	74	76	55	60
ECONOMISTS	2671	100	100	77	81	90	87	65	73	10	13	12	8
POLITICAL SCIENTISTS	2672	80	77	41	48	67	65	36	45	13	12	5	3
SOCIOLOGISTS	2673	108	113	75	73	73	76	55	51	35	37	20	22
OTHER SOCIAL SCIENTISTS	2674	51	53	37	49	35	39	19	22	16	14	18	27
TOTAL	2600	1635	1610	1076	1110	1166	1168	695	762	469	442	381	348

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	117	160	64	78	53	82	87.	2.	2.3
AERONAUTICAL & ASTRONAUTICAL	2711	5	4	4	3	1	1	4.	0.	0.0
CHEMICAL ENGINEERS	2712	2	2	2	2	0	0	2.	0.	0.0
CIVIL ENGINEERS	2713	23	27	13	16	10	11	18.	2.	11.1
ELECTRICAL ENGINEERS	2714	31	48	15	22	16	26	22.	0.	0.0
MECHANICAL ENGINEERS	2715	42	58	22	24	20	34	30.	0.	0.0
OTHER ENGINEERS	2716	14	21	8	11	6	10	10.	0.	0.0
PHYSICAL SCIENTISTS (TOTAL)	2720	363	364	239	241	124	123	314.	12.	3.8
ASTRONOMERS	2721	8	8	6	6	2	2	8.	0.	0.0
CHEMISTS	2722	211	211	142	145	69	66	183.	10.	5.5
PHYSICISTS	2723	111	112	73	72	38	40	96.	2.	2.1
OTHER PHYSICAL SCIENTISTS	2724	33	33	18	18	15	15	27.	0.	0.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	50	44	33	33	17	11	42.	0.	0.0
ATMOSPHERIC SCIENTISTS	2731	0	2	0	2	0	0	0.	0.	0.0
EARTH SCIENTISTS	2732	37	37	24	26	13	11	33.	0.	0.0
OCEANOGRAPHERS	2733	1	0	1	0	0	0	1.	0.	0.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	12	5	8	5	4	0	8.	0.	0.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	606	603	311	302	295	301	454.	5.	1.1
MATHEMATICIANS	2741	457	464	256	254	201	210	358.	5.	1.4
COMPUTER SCIENTISTS	2742	149	139	55	48	94	91	96.	0.	0.0
LIFE SCIENTISTS (TOTAL)	2750	689	634	465	431	224	203	571.	19.	3.3
AGRICULTURAL SCIENTISTS	2751	58	55	51	48	7	7	55.	0.	0.0
BIOLOGICAL SCIENTISTS	2752	418	406	301	294	117	112	368.	18.	4.9
MEDICAL SCIENTISTS	2753	116	116	48	54	68	62	64.	0.	0.0
OTHER LIFE SCIENTISTS	2754	97	57	65	35	32	22	84.	0.	0.0
PSYCHOLOGISTS (TOTAL)	2760	317	321	184	182	133	139	238.	1.	0.4
SOCIAL SCIENTISTS (TOTAL)	2770	569	594	339	343	230	251	459.	3.	0.7
ECONOMISTS	2771	177	181	100	100	77	81	141.	0.	0.0
POLITICAL SCIENTISTS	2772	121	125	80	77	41	48	102.	0.	0.0
SOCIOLOGISTS	2773	183	186	108	113	75	73	154.	2.	1.3
OTHER SOCIAL SCIENTISTS	2774	88	102	51	53	37	49	62.	0.	0.0
TOTAL	2700	2711	2720	1635	1610	1076	1110	2166.	42.	1.9

TABLE A1P

SURVEY OF SCIENTIFIC AND ENGINEERING EMPLOYMENT, JANUARY 1982
FEDERALLY FUNDED RESEARCH & DEVELOPMENT CENTERS
QUESTIONNAIRE SUMMARIES

SCIENTISTS AND ENGINEERS, JANUARY 1982 AND JANUARY 1981

ITEM 1. HIGHEST EARNED DEGREE		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981
DOCTOR'S	2210	6334	6336	6180	6197	154	139
FIRST PROFESSIONAL	2220	44	50	39	45	5	5
MASTER'S	2230	3690	3693	3545	3553	145	140
BACHELOR'S OR THE EQUIVALENT	2240	5179	5217	4923	4998	256	219
TOTAL	2200	15247	15296	14687	14793	560	503

ITEM 2. DISCIPLINES		TOTAL FULL TIME 1982	TOTAL FULL TIME 1981	TOTAL PART TIME 1982	TOTAL PART TIME 1981	MEN FULL TIME 1982	MEN FULL TIME 1981	MEN PART TIME 1982	MEN PART TIME 1981	WOMEN FULL TIME 1982	WOMEN FULL TIME 1981	WOMEN PART TIME 1982	WOMEN PART TIME 1981
ENGINEERS (TOTAL)	2610	6456	6474	142	135	6271	6301	114	109	185	173	28	26
AERONAUTICAL & ASTRONAUTICAL	2611	235	238	9	9	229	232	9	9	6	6	0	0
CHEMICAL ENGINEERS	2612	279	290	9	7	264	273	8	6	15	17	1	1
CIVIL ENGINEERS	2613	238	224	2	3	231	219	2	2	7	5	0	1
ELECTRICAL ENGINEERS	2614	2234	2262	46	39	2182	2217	44	38	52	45	2	1
MECHANICAL ENGINEERS	2615	1535	1551	37	39	1512	1529	34	37	23	22	3	2
OTHER ENGINEERS	2616	1935	1909	39	38	1853	1831	17	17	82	78	22	21
PHYSICAL SCIENTISTS (TOTAL)	2620	5274	5331	206	181	4995	5062	158	137	279	269	48	44
ASTRONOMERS	2621	138	150	2	1	131	141	2	1	7	9	0	0
CHEMISTS	2622	1365	1375	47	48	1234	1253	21	20	131	122	26	28
PHYSICISTS	2623	3361	3383	139	120	3237	3265	120	106	124	118	19	14
OTHER PHYSICAL SCIENTISTS	2624	410	423	18	12	393	403	15	10	17	20	3	2
ENVIRONMENTAL SCIENTISTS (TOTAL)	2630	758	818	43	35	667	726	28	22	91	92	15	13
ATMOSPHERIC SCIENTISTS	2631	159	207	3	10	145	191	1	5	14	16	2	5
EARTH SCIENTISTS	2632	264	278	26	19	236	249	20	15	28	29	6	4
OCEANOGRAPHERS	2633	23	25	0	1	21	22	0	1	2	3	0	0
OTHER ENVIRONMENTAL SCIENTISTS	2634	312	308	14	5	265	264	7	1	47	44	7	4
MATHEMATICAL SCIENTISTS (TOTAL)	2640	1418	1342	113	102	1103	1065	66	59	315	277	47	43
MATHEMATICIANS	2641	688	667	35	35	544	542	20	22	144	125	15	13
COMPUTER SCIENTISTS	2642	730	675	78	67	559	523	46	37	171	152	32	30
LIFE SCIENTISTS (TOTAL)	2650	685	713	46	41	493	512	17	14	192	201	29	27
AGRICULTURAL SCIENTISTS	2651	4	5	0	0	3	5	0	0	1	0	0	0
BIOLOGICAL SCIENTISTS	2652	495	495	33	28	358	345	12	9	137	150	21	19
MEDICAL SCIENTISTS	2653	54	65	5	5	44	56	4	4	10	9	1	1
OTHER LIFE SCIENTISTS	2654	132	148	8	8	88	106	1	1	44	42	7	7
PSYCHOLOGISTS (TOTAL)	2660	4	8	0	1	3	6	0	0	1	2	0	1
SOCIAL SCIENTISTS (TOTAL)	2670	92	107	10	8	79	93	4	4	13	14	6	4
ECONOMISTS	2671	61	69	5	4	54	63	4	3	7	6	1	1
POLITICAL SCIENTISTS	2672	11	14	1	0	11	13	0	0	0	1	1	0
SOCIOLOGISTS	2673	3	4	1	1	2	2	0	0	1	2	1	1
OTHER SOCIAL SCIENTISTS	2674	17	20	3	3	12	15	0	1	5	5	3	2
TOTAL	2600	14687	14793	560	503	13611	13765	387	345	1076	1028	173	158

ITEM 3. DISCIPLINES		TOTAL 1982	TOTAL 1981	FULL TIME 1982	FULL TIME 1981	PART TIME 1982	PART TIME 1981	TOTAL FTE'S 1982	FTE'S DEVOTED TO R&D 1982	% TOTAL FTE'S DEVOTED TO R&D 1982
ENGINEERS (TOTAL)	2710	6598	6609	6456	6474	142	135	6560.	6559.	100.0
AERONAUTICAL & ASTRONAUTICAL	2711	244	247	235	238	9	9	244.	244.	100.0
CHEMICAL ENGINEERS	2712	288	297	279	290	9	7	283.	283.	100.0
CIVIL ENGINEERS	2713	240	227	238	224	2	3	239.	238.	99.5
ELECTRICAL ENGINEERS	2714	2280	2301	2234	2262	46	39	2270.	2270.	100.0
MECHANICAL ENGINEERS	2715	1572	1590	1535	1551	37	39	1561.	1561.	100.0
OTHER ENGINEERS	2716	1974	1947	1935	1909	39	38	1963.	1963.	100.0
PHYSICAL SCIENTISTS (TOTAL)	2720	5480	5512	5274	5331	206	181	5377.	5377.	100.0
ASTRONOMERS	2721	140	151	138	150	2	1	139.	139.	100.0
CHEMISTS	2722	1412	1423	1365	1375	47	48	1384.	1384.	100.0
PHYSICISTS	2723	3500	3503	3361	3383	139	120	3434.	3434.	100.0
OTHER PHYSICAL SCIENTISTS	2724	428	435	410	423	18	12	421.	421.	100.0
ENVIRONMENTAL SCIENTISTS (TOTAL)	2730	801	853	758	818	43	35	780.	780.	100.0
ATMOSPHERIC SCIENTISTS	2731	162	217	159	207	3	10	161.	161.	100.0
EARTH SCIENTISTS	2732	290	297	264	278	26	19	277.	277.	100.0
OCEANOGRAPHERS	2733	23	26	23	25	0	1	23.	23.	100.0
OTHER ENVIRONMENTAL SCIENTISTS	2734	326	313	312	308	14	5	319.	319.	100.0
MATHEMATICAL SCIENTISTS (TOTAL)	2740	1531	1444	1418	1342	113	102	1479.	1479.	100.0
MATHEMATICIANS	2741	723	702	688	667	35	35	710.	710.	100.0
COMPUTER SCIENTISTS	2742	808	742	730	675	78	67	770.	770.	100.0
LIFE SCIENTISTS (TOTAL)	2750	731	754	685	713	46	41	710.	710.	100.0
AGRICULTURAL SCIENTISTS	2751	4	5	4	5	0	0	4.	4.	100.0
BIOLOGICAL SCIENTISTS	2752	528	523	495	495	33	28	513.	512.	99.8
MEDICAL SCIENTISTS	2753	59	70	54	65	5	5	56.	56.	100.0
OTHER LIFE SCIENTISTS	2754	140	156	132	148	8	8	138.	138.	100.0
PSYCHOLOGISTS (TOTAL)	2760	4	9	4	8	0	1	4.	4.	100.0
SOCIAL SCIENTISTS (TOTAL)	2770	102	115	92	107	10	8	98.	96.	98.0
ECONOMISTS	2771	66	73	61	69	5	4	65.	64.	98.5
POLITICAL SCIENTISTS	2772	12	14	11	14	1	0	12.	12.	100.0
SOCIOLOGISTS	2773	4	5	3	4	1	1	4.	4.	100.0
OTHER SOCIAL SCIENTISTS	2774	20	23	17	20	3	3	19.	18.	94.7
TOTAL	2700	15247	15296	14687	14793	560	503	15009.	15006.	100.0

section d

university-administered ffrdc's: january 1982

department of defense

Center for Naval Analyses (University of Rochester).

Lincoln Laboratory (Massachusetts Institute of Technology).

department of energy

Ames Laboratory (Iowa State University of Science and Technology).

Argonne National Laboratory (University of Chicago and Argonne Universities Association).

Brookhaven National Laboratory (Associated Universities, Inc.).

E. O. Lawrence Berkeley Laboratory (University of California).

E. O. Lawrence Livermore Laboratory (University of California).

Los Alamos Scientific Laboratory (University of California).

Fermi National Accelerator Laboratory (Universities Research Association).

Oak Ridge Institute of Nuclear Studies (Oak Ridge Associated Universities).

Plasma Physics Laboratory (Princeton University).

Stanford Linear Accelerator Center (Stanford University).

national aeronautics and space administration

Jet Propulsion Laboratory (California Institute of Technology).

national science foundation

Cerro Tololo Inter-American Observatory (Association of Universities for Research in Astronomy, Inc.).

National Astronomy and Ionosphere Center (Cornell University).

Kitt Peak National Observatory (Association of Universities for Research in Astronomy, Inc.).

National Center for Atmospheric Research (University Corporation for Atmospheric Research).

National Radio Astronomy Observatory (Associated Universities, Inc).

Sacramento Peak Observatory (Association of Universities for Research in Astronomy, Inc.).

section e

reproduction of survey instruments

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survey questionnaire 93
survey instructions and definitions 98
crosswalk 106

NATIONAL SCIENCE FOUNDATION
WASHINGTON, D.C. 20550

Re: Survey of Scientific and Engineering Personnel Employed at Universities and Colleges, January 1983

Dear Colleague:

This survey is one element of the system that makes up the Integrated Data Base covering scientific and engineering (S/E) resources at academic and selected nonprofit institutions. This data base is managed by the Universities and Nonprofit Institutions Studies Group (UNISG), Mrs. Penny D. Foster, Study Director. Information for the survey is solicited under the authority of the National Science Foundation Act of 1950, as amended. Your participation in it is entirely voluntary, and failure to participate will not affect your institution adversely in any way. Information provided is for statistical use only.

This package contains:

January 1983 S/E Personnel Survey Form 724A, with instructions Form 724B
Facsimile
NSF/NCES "Crosswalk" defining S/E fields
Postcard to notify NSF of receipt of package
Envelope for mailing completed form

THE JANUARY 1983 SURVEY FORM 724A WITH INSTRUCTIONS FORM 724B

The 1983 form requests the same information as the 1982 form. In an effort to make completing the form easier, we have improved the format of the questions but their content is the same as on the 1982 form. The instructions for completing have been clarified. A facsimile is attached that shows data received from your institution.

NSF/NCES CROSSWALK

The crosswalk connects NSF's S/E fields with the National Center for Education Statistics Classification of Instructional Programs (NCES 81-323). It is provided to aid respondents whose institutional recordkeeping systems are organized according to NCES classifications.

POSTCARD

As soon as you receive this survey package, please let us know by filling out and mailing the postcard enclosed, stating the name and telephone number of the person completing the survey form.

RETURN ENVELOPE

A return, postage-paid envelope is provided for your use in sending in the completed survey form.

NSF CONTACT

If questions arise when completing the survey form, please call Ms. Judith Coakley or Ms. Esther Gist at (202) 634-4673. Thank you for your efforts in providing timely and meaningful statistics to NSF.

Penny D. Foster

Penny D. Foster
Study Director
Universities and Nonprofit Institutions
Studies Group
Division of Science Resources Studies

Enclosures

NSF FORM 724A (11-82)

OMB No. 3145-0074
Exp. Date: 12/31/83

NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20550

SURVEY OF SCIENTIFIC AND ENGINEERING PERSONNEL EMPLOYED AT UNIVERSITIES AND COLLEGES, JANUARY 1983

Organizations are requested to complete and return this form to:

NATIONAL SCIENCE FOUNDATION
1800 G Street, N.W., Room L-602
Washington, D.C. 20550—Attn: UNISG

This information is solicited under the authority of Section 3 (a) (6) of the National Science Foundation Act of 1950, as amended (42 U.S. Code 1862 (a) (6)). Your response is entirely voluntary and your failure to provide some or all of the information will in no way adversely affect your institution.

Please correct if name or address has changed.

This survey requests scientific and engineering (S/E) employment data according to institutional recordkeeping conventions. **The completed 1983 questionnaire should be returned by March 15, 1983.** Your prompt cooperation will be appreciated. If you determine, however, that you cannot respond by March 15, please notify NSF and request an extension of time.

Please read the enclosed instructions before completing this form. If you have any questions, contact Ms. Judith Coakley or Ms. Esther Gist (202-634-4673). Please complete all columns; estimates by academic officials will be better than NSF estimates.

All entries should be in whole numbers; please do not enter decimals or fractions, except in item 3, columns 2 and 3, where two decimal places are optional.

SURVEY POPULATION

Include data for ALL ORGANIZATIONAL UNITS OF YOUR INSTITUTION THAT EMPLOY SCIENTISTS AND ENGINEERS, such as regional campuses, computer centers, medical schools, agricultural experiment stations, and associated research units. Also include any hospital or clinic owned, operated, or controlled by your university and integrated operationally with the clinical programs of your medical schools.

Federally Funded Research and Development Centers (FFRDC's)

Separate forms have been mailed directly to all FFRDC's administered by academic institutions. A list of these centers appears on page 3 of the Instructions and Definitions.

INSTITUTIONAL CLASSIFICATION

Highest degree granted in the sciences or engineering during 1982-83	Check one	One example of a science or engineering field in which highest degree was awarded	Check primary administrative control of your institution	
Doctor's degree, e.g., Ph.D., D. Eng., or D.E.S.	☐	_____	Federal	☐
First-professional degree, e.g., M.D., D.D.S., D.V.M., etc.	☐	_____	State	☐
Master's degree	☐	_____		
Bachelor's degree	☐	_____	Local	☐
Associate or other 2-year award	☐	_____		
No degrees granted in the sciences or engineering	☐	_____	Private	☐

Item 1.	Total number of scientists and engineers by highest earned degree and employment status: January 1983			
HIGHEST EARNED DEGREE		HEADCOUNTS		
		TOTAL (1)	FULL TIME (2)	PART TIME (3)
a. Doctor's degree, e.g., Ph. D., D. Eng., or D.E.S.	2210			
b. First-professional degree, e.g., M.D., D.D.S., D.V.M.. etc.	2220			
c. Master's degree	2230			
d. Bachelor's degree or the equivalent	2240			
e. Total (sum of a through d)	2200			

NOTE: To ensure proper data comparability between item 1, line 2200, and items 2 and 3:

a) Line 2200, column 1 should equal item 3, line 2700, column 1;
b) Line 2200, column 2 should equal item 2, line 2600, column 1;
c) Line 2200, column 3 should equal item 2, line 2600, column 2.

Item 2.	Total number of scientists and engineers by discipline, sex, and employment status: January 1983						
	S/E DISCIPLINES[1]	HEADCOUNTS					
		TOTAL		MEN		WOMEN	
		Full time	Part time	Full time	Part time	Full time	Part time
		(1)	(2)	(3)	(4)	(5)	(6)
	a. Engineers (total) 2610						
	(1) Aeronautical and astronautical engineers .. 2611						
	(2) Chemical engineers 2612						
	(3) Civil engineers 2613						
	(4) Electrical engineers 2614						
	(5) Mechanical engineers 2615						
	(6) Other engineers 2616						
	b. Physical scientists (total) 2620						
	(1) Astronomers 2621						
	(2) Chemists 2622						
	(3) Physicists 2623						
	(4) Other physical scientists . 2624						
	c. Environ. scientists (total) 2630						
	(1) Atmospheric scientists ... 2631						
	(2) Earth scientists 2632						
	(3) Oceanographers 2633						
	(4) Other environ. sci. 2634						
	d. Mathematical and computer scientists (total) 2640						
	(1) Mathematicians (exclude computer scientists) 2641						
	(2) Computer scientists (exclude programmers) .. 2642						
	e. Life scientists (total) 2650						
	(1) Agricultural scientists 2651						
	(2) Biological scientists 2652						
	(3) Medical scientists (see instructions, p. 4) 2653						
	(4) Other life scientists 2654						
	f. Psychologists (total) 2660						
	g. Social scientists (total) (exclude historians) 2670						
	(1) Economists 2671						
	(2) Political scientists 2672						
	(3) Sociologists 2673						
	(4) Other social scientists 2674						
	h. Total (sum of a thru g) 2600						

PLEASE EXCLUDE from your response any employees in the fields of education, law, humanities, music, the arts, physical education, library science, and all other nonscience fields.

[1]See enclosed Crosswalk between NSF's S/E disciplines and the codes in the NCES Classification of Instructional Programs.

Item 3.	Total number of scientists and engineers by discipline, estimated full-time equivalents, and R&D activity: January 1983				
	S/E Disciplines	Total headcounts[1]	Estimated full-time-equivalents (FTE's)		
			Total FTE's[2]	FTE's devoted to separately budgeted R&D[3]	
				Number	Percent (optional)[4]
	a. Engineers (total) 2710				%
	(1) Aeronautical and astronautical engineers 2711				%
	(2) Chemical engineers 2712				%
	(3) Civil engineers 2713				%
	(4) Electrical engineers 2714				%
	(5) Mechanical engineers 2715				%
	(6) Other engineers 2716				%
	b. Physical scientists (total) 2620				%
	(1) Astronomers 2721				%
	(2) Chemists 2722				%
	(3) Physicists 2723				%
	(4) Other physical scientists 2724				%
	c. Environmental scientists (total) 2730				%
	(1) Atmospheric scientists 2731				%
	(2) Earth scientists 2732				%
	(3) Oceanographers 2733				%
	(4) Other environmental scientists 2734				%
	d. Mathematical and computer scientists (total) 2740				%
	(1) Mathematicians (exclude computer scientists) 2741				%
	(2) Computer scientists (exclude programmers) 2742				%
	e. Life scientists (total) 2750				%
	(1) Agricultural scientists 2751				%
	(2) Biological scientists 2752				%
	(3) Medical scientists (see instructions, p. 4) 2753				%
	(4) Other life scientists 2754				%
	f. Psychologists (total) 2760				%
	g. Social scientists (total) (exclude historians) 2770				%
	(1) Economists 2771				%
	(2) Political scientists 2772				%
	(3) Sociologists 2773				%
	(4) Other social scientists 2774				%
	h. Total (sum of a thru g) 2700				%

[1]Line 2700, column 1, should equal item 1, line 2200, column 1.

[2]Include all activities, e.g., teaching, separately budgeted R&D, etc., of all individuals reported in column 1.

[3]See section 8 in Instructions for definition of "separately budgeted R&D expenditures."

[4]Column 4 has been provided for the convenience of those institutions that estimate the number (column 3) of FTE's devoted to separately budgeted R&D activities by use of a percentage (column 4) in each discipline.

CHECK LIST

( ) 1. Are all entries rounded to whole numbers? Please do not enter fractions or decimals, except in columns 2 and 3 where two decimal places are optional.

( ) 2. Do the data add to subtotals?

( ) 3. Are all columns completed? YOUR estimates will be better than OURS. An explanation of estimates may be noted on a separate sheet or in the REMARKS.

( ) 4. Are all branches and components such as medical school, computer center, agricultural experiment station, and associated research units included?

( ) 5. Have you INCLUDED all postdoctorates?

( ) 6. Have you EXCLUDED graduate students?

1982-83 DATA CHECK

(For your convenience)

Please compare your January 1982 survey response with your survey response for January 1983, particularly for the totals. Please explain below or on a separate sheet any significant changes. Where possible, indicate any required adjustments in data reported in previous years.

	1982	1983
Total full-time scientists and engineers	Line 2600, column 1.	Line 2600, column 1.
Total part-time scientists and engineers	Line 2600, column 2.	Line 2600, column 2.
Total FTE's	Line 2700, column 2.	Line 2700, column 2.
Total FTE's in R&D	Line 2700, column 3.	Line 2700, column 3.

CONFIDENTIALITY

The National Science Foundation recognizes that its ability to gather much of the enclosed information would be severely impaired if it could not be held in confidence. Please indicate below the number of any items that you would not supply unless assured that the source is held confidential. The Foundation will hold in confidence such information to the extent permitted by law.

ITEM:

REMARKS

What methods and source records were used for estimating separately budgeted R&D effort?

Please indicate problems encountered in estimating R&D-related activity.

Please circle the month that your institutional data represent to reflect academic year 1982-83 employment.

1 2 3 4 5 6 7 8 9 10 11 12

Are there any significant changes in data reported in previous years?

How many person-hours were required to complete this form? ☐

PLEASE TYPE OR PRINT NAME OF PERSON SUBMITTING THIS FORM	TITLE	AREA CODE	EXCH	NO.	EXT.
NAME OF PERSON WHO PREPARED THIS SUBMISSION (If different from above)	TITLE	AREA CODE	EXCH	NO.	EXT.

NAME OF INSTITUTION	DATE	ADDRESS (number, street, city, State, ZIP code)

NSF FORM 724B (11-82)

OMB No. 3145-0074
Exp. Date: 12/31/83

NATIONAL SCIENCE FOUNDATION
Washington, D.C. 20550

SURVEY OF SCIENTIFIC AND ENGINEERING PERSONNEL EMPLOYED AT UNIVERSITIES AND COLLEGES, JANUARY 1983

INSTRUCTIONS AND DEFINITIONS

Introduction

This information is solicited under the authority of the National Science Foundation Act of 1950, as amended in P.L. 507 (42 U.S.C. 1862) (Section 3(a) (6)], and Executive Order 10521 (March 17, 1954). All information you provide will be used for statistical purposes only. Your response is entirely voluntary and your failure to provide some or all of the information will in no way adversely affect your institution.

The National Science Foundation requests your cooperation in completing the attached questionnaire covering the characteristics of personnel in your institution as they relate to the sciences and engineering. This form requests employment data in 1982-83 according to institutional recordkeeping coventions. The questionnaire should be completed and returned to NSF by March 15, 1983. If you determine, however, that you will not be able to respond by that date, please notify NSF and request an extension of time.

Where data you report in the current survey differ significantly from those reported in the previous survey, please indicate the reasons for the difference, such as "opening of new medical school," etc., at the end of the questionnaire in the "Remarks" section, or on a separate sheet of paper.

The survey procedures are outlined in flow chart format. (See pp. 5-8.)

If you have any questions regarding information requested on this form, write or telephone Ms. Judith Coakley or Ms. Esther Gist at the Universities and Nonprofit Institutions Studies Group, Division of Science Resources Studies, National Science Foundation, 1800 G Street, N.W., Room L-602, Washington, D.C. 20550 (Telephone: (202) 634-4673.) Additional forms, as well as copies of previous responses, may be obtained by writing to the above address.

Survey Instructions

1. *Survey Population*

This survey, conducted annually, covers professional employment at all academic institutions with a science or engineering (S/E) program. The institutional response to this survey should reflect personnel activity in all branches and other units of the parent institution, including regional campuses, computer centers, medical schools, agricultural experiment stations, and associated research units. If any data for any of these campuses are not included in your response to NSF, please indicate this under "Remarks" when submitting your questionnaire.

Federally funded research and development centers (FFRDC's) are to report their data separately from the administering university; see the listing of FFRDC's administered by academic institutions (p. 3.)

2. *Survey Time Period*

The January date referenced in this questionnaire reflects the midpoint of the 1982-83 academic year rather than the actual reporting date of data to be compiled for NSF. Data reported on this survey are to reflect a "snapshot" of S/E personnel employed at a fixed time during the 1982-83 academic year. For institutions reporting on the basis of central record systems, data should reflect the date when your files are "frozen" for annual personnel reports. Many institutions, especially those with State affiliation, use their central records compiled in the preceding fall of each year to report to NSF. You may want to report as of the payroll period closest to October 1, 1982, which is the basis for the Equal Employment Opportunity Commission's survey of higher education staff (EEO-6, Form 221). Please indicate the reporting month used by your institution in the space provided in the "Remarks" section.

3. *Professional Employment*

The term "professional," for purposes of this survey, refers to all persons paid a salary or stipend by the responding institution who work at a level at which the knowledge acquired by academic training equal to a bachelor's degree in science or engineering is essential in the performance of duties. Many institutions with central reporting systems use headcounts of *exempt* employees, i.e., those employees who are in the exempt category of the Fair Labor Standards Act as amended. Exempt employees are not eligible for overtime payment. Others use EEO-6 concepts.

Include: S/E personnel with faculty status, postdoctorates,[1] and other professional employees such as systems analysts in computer centers.

Exclude: (1) Personnel on sabbatical or other leave status even if these personnel continue to be paid by your institution; (2) personnel employed in branches of your institution located in foreign countries; (3) unpaid voluntary staff; (4) persons "unpaid" by the university but paid by the medical school; (5) student health service personnel; (6) those agricultural extension personnel primarily involved in home economics and 4-H youth programs; (7) administrative officers above the level of department chairpersons with titles such as president, academic dean, dean of faculty, provost, chancellor, etc., even though they may devote part of their time to teaching and/or research; (8) all graduate students.

[1]Some institutions without comprehensive central records on the number of postdoctorates base their response to this survey on data gathered in the office of the graduate dean as part of NSF's Survey of Graduate Science and Engineering Students and Postdoctorates.

4. *Assignment of Scientists and Engineers to NSF Disciplines*

Determination of whether professional employees should be reported in the NSF personnel survey as "scientists and engineers" and their associated disciplines is done by most respondents on the basis of departmental structures. After particular departments are selected for inclusion in the NSF personnel survey, respondents usually classify headcounts of all professional employees into various S/E disciplines according to their primary or home department of assignment. Where individual assignments are split into two departments on a 50-percent basis, classification into a single NSF discipline should be made according to institutional conventions.

See the classification of Disciplines of Employment in the Sciences and Engineering, for the broad and detailed S/E disciplines of employment corresponding to those shown on the questionnaire, with illustrative categories of each discipline (pages 3 and 4.) Also, for those that use the NCES instructional program categories, see the enclosed "Crosswalk" between NSF's S/E fields and the codes in the NCES Classifications of Instructional Programs (NCES 81-323). Please note that education, law, humanities, music, the arts, physical education, and library science are not considered S/E disciplines for the purpose of this survey. This discipline-oriented taxonomy is used by institutions that compile their own departmental groupings for this NSF survey. While most respondents report S/E headcounts based on departmental structures, NSF recognizes that because of the multidisciplinary nature of many academic activities, degree specialties and departmental assignments may differ (e.g., a Ph.D. in mechanical engineering may be assigned to the department of orthopedics.) To promote ease of reporting and consistency of data among institutions, it is suggested that where these differences are not significant, all professionals in the department be assigned to a single discipline. In other instances, where sizable differences occur, institutional respondents may choose to report professionals employed in a single department into two or more disciplines. For example, an institution may have a single department of electrical engineering and computer science and report individuals into two separate disciplines on the NSF personnel survey according to their degree specialties.

It is important that respondents *include* in the survey scientists and engineers who are appointed to organizational units that are not part of *any* academic department. For example, scientists and engineers employed at a computer center that is not affiliated with a particular academic department should be *included* in the survey. In a similar manner an economist in a nonscience department should be reported. The most prevalent reporting practice for these nonacademic units is to assign groups of individuals to NSF disciplines according to their degree specialties, especially when multidisciplinary activities are prominent.

5. *Medical and Clinical Disciplines*

For purposes of this survey, all M.D.'s, D.D.S.'s, etc., *with faculty or academic appointments* are to be reported, including postdoctorates. NSF considers faculty status given to physicians, dentists, public health specialists, pharmacists, etc., to be an indicator of significant involvement in teaching, clinical investigation, or other R&D activities.

Exclude: (1) All medical practitioners, such as nurse anesthetists, occupational therapists, physical therapists, interns; (2) scientists or engineers whose primary employment is at independent hospitals even though they may perform some teaching or research functions for your institution through cooperative agreements; (3) unpaid voluntary staff at medical or dental schools; and (4) medical residents unless research training under the supervision of a senior mentor is the prime purpose of the appointment.

6. *Questionnaire Item 1, Highest Earned Degree and Headcounts*

a. Highest earned degree information is most commonly available in personnel, payroll, or budget files. Most academic institutions have a computerized system for updating highest earned degree data for professionals. If these files at your institution do not contain degree data, however, these data may be estimated using departmental records.

For purposes of this survey, earned degrees are classified in four categories:

(1) Under "Doctorate Degree" include earned degrees carrying the title of Doctor, e.g., Ph.D., D. Eng., D.E.S., etc; include individuals holding both the Ph.D. degree and any other doctorate degree.

(2) Under "First-Professional Degree" include individuals whose highest earned degrees, e.g., M.D., D.D.S., D.V.M., etc., are first-professional medical degrees that represent the completion of the academic requirements based on programs that require at least 2 academic years of previous college work for entrance and require a total of at least 6 academic years of college work for completion. Specifically include in line 2b first-professional degrees in Medicine (M.D.), Dentistry (D.D.S. or D.M.D.), Veterinary Medicine (D.V.M.), Podiatric Medicine (D.P.M.) and Osteopathic Medicine (D.O.). Individuals holding both the Ph.D. degree and a first-professional degree such as the M.D., should be included in line 2a as mentioned in (1) above.

(3) Under "Master's Degree" include earned degrees carrying the title of Master that are above the bachelor's degree and are other-than-doctorate or first-professional degrees reported in lines 2a and 2b.

(4) Under "Bachelor's degree or the equivalent" include all individuals who have successfully completed a baccalaureate program of studies, usually requiring at least 4 years (or equivalent) of full-time college level study. For the purpose of this survey, 5-year bachelor's degree holders may be included in this category, as well as those who are considered to have the equivalent in experience, even if they have not earned such as degree.

b. *Headcounts*

(1) *Full-time* employees are those individuals available for full-time assignments at the date used for reporting in this survey, or those who are designated as "full time" in an official contract, appointment, or agreement. Determination of "full-time" designation should be based on institutional recordkeeping conventions and standards. Avoid double counting; if, for example, individuals are full-time employees but their assignments involve more than one department or campus, they should be counted as one full-time employee according to their primary or home department of assignment (or campus).

(2) *Part-time* employees are those individuals who work for a length of time in a day, week, etc., defined by your institution as part-time employment.

7. *Questionnaire Item 2, Sex of Full- and Part-time Scientists and Engineers*

Item 2 collects data on the sex of full- and part-time scientists and engineers, characteristics which are usually available in central records. Computer programs used to respond to other requests for employment data on women may often be modified to provide specialized information on scientists and engineers.

8. *Questionnaire Item 3, Full-Time-Equivalents (FTE's)*

a. The FTE reporting concept should reflect the actual utilization of S/E professionals in various disciplines and their involvement in separately budgeted R&D activities. While headcounts are usually reported on the basis of *primary* department of assignment, FTE reporting in various NSF disciplines should reflect multiple appointments. **For example, an individual with a 60-percent appointment in electrical engineering and a 40-percent appointment in computer science would be reported in FTE's in two NSF disciplines according to the 60-40 percent split in departmental assignments.** Accordingly, the FTE concept converts the number of persons with part-time or split appointments among various disciplines or activities to an equivalent number of full-time persons, in accordance with institutionally agreed upon conventions. The number of FTE's reported in column 2 of item 3 should be equal to or greater than the number of full-time employees in any given field, using decimals (proportion of 1.00) for part-time employees. Therefore, the number of FTE's would be equal to or less than the total headcount in any field, and equal to or greater than the number of full-time employees.

The procedures used to compile FTE data vary from institution to institution, depending largely on the records available. Generally, there are two categories of records available to institutions—budgeting information describing the allocation of personnel resources and/or data reflecting actual rather than planned utilization of the resources.

In converting S/E headcounts into FTE's, the following method is suggested:

(1) Categorize headcounts of all exempt employees in S/E departments, medical schools, agricultural experiment stations, research institutes, and other institutional organizational units into one of the NSF disciplines according to primary assignment;

(2) Within each discipline, differentiate employees as being either full time or part time (according to institutional practices);

(3) Calculate the full-time equivalents of full-time S/E personnel. Use budgetary or resource utilization records to report S/E employees with split appointments between departments and/or institutional units, and distribute these data according to appropriate NSF disciplines.

(4) Calculate the full-time equivalents of part-time S/E personnel and merge them into appropriate NSF disciplines.

b. *Full-Time-Equivalents in Research and Development (R&D)*

For purposes of this survey, report only the full-time-equivalent involvement of persons engaged in *separately budgeted research and development.*

R&D activities are systematic, intensive studies directed toward fuller knowledge of the subject studied. R&D is the same as "organized research" as defined in OMB Circular A-21 revised, July 23, 1982. It includes all R&D activities of an institution that are *separately budgeted and accounted for.* R&D includes both "sponsored research" activities (sponsored by Federal or non-Federal agencies and organizations) and "university research" (separately budgeted under an internal application of institutional funds).

Exclude: Time spent by professional employees on departmental research that is not separately budgeted, training grants, public service grants, demonstration projects, etc.

Estimating the division of time allocated or spent by individuals in separately budgeted R&D programs is difficult for many institutions. Again, procedures used to supply these data vary among institutions and the extent to which central reporting is feasible depends, by and large, on the degree to which budget/personnel/financial records are mechanized and linked. Among the procedures used by various institutions are the following:

(1) Using some generally held criteria at the institutional or departmental levels (i.e., three-fourths for instruction, one-fourth for research);

(2) Estimating separately budgeted R&D involvement or assignment obtained from payroll records, personnel records, or from employee contracts (i.e., salaries paid from separately budgeted R&D funds may be compared with total academic salaries of individuals);

(3) Asking research administrators, department chairpersons, or heads of other organizational units to furnish estimates of separately budgeted R&D involvement.

(4) Using faculty activity analyses in institutions where these are regularly conducted, and differentiating separately budgeted R&D activity from departmental research activity.

Federally Funded Research and Development Centers (FFRDC's)

For purposes of this survey, FFRDC's are defined as R&D organizations exclusively or substantially financed by the Federal Government and administered on a contractual basis by educational institutions or other organizations. The following is a current list of FFRDC's administered by universities and colleges:

Ames Laboratory
Argonne National Laboratory
Brookhaven National Laboratory
Center for Naval Analyses
Cerro Tololo Inter-American Observatory
E. O. Lawrence Berkeley Laboratory
E. O. Lawrence Livermore Laboratory
Fermi National Accelerator Laboratory
Jet Propulsion Laboratory
Kitt Peak National Observatory
Lincoln Laboratory
Los Alamos Scientific Laboratory
National Astronomy and Ionosphere Center
National Center for Atmospheric Research
National Radio Astronomy Observatory
Oak Ridge Institute of Nuclear Studies
Plasma Physics Laboratory
Sacramento Peak Observatory
Stanford Linear Accelerator Center

Classification of disciplines of Employment in the Sciences and Engineering. Illustrative subfields include:

ENGINEERING

Aeronautical & Astronomical: aerodynamics, aerospace, space technology.

Chemical: ceramic, petroleum, petroleum refining process.

Civil: architectural, hydraulic, hydrologic, marine, sanitary and environmental, structural, transportation.

Electrical: communication, electronic, power.

Mechanical: engineering mechanics.

Other Engineering: agricultural, industrial and management, metallurgical and materials, mining, nuclear, ocean engineering systems, textile, welding.

PHYSICAL SCIENCES

Astronomy: laboratory astrophysics, optical astronomy, radio astronomy, theoretical astrophysics, X-ray, gamma-ray, neutrino astronomy.

Chemistry: analytical, inorganic, organo-metallic, organic, pharmaceutical, physical, polymer science (exclude biochemistry).

Physics: acoustics, atomic and molecular, condensed matter, elementary particles, nuclear structure, optics, plasma.

Other Physical Sciences: used for multidisciplinary fields within physical sciences.

ENVIRONMENTAL SCIENCES (TERRESTRIAL AND EXTRATERRESTRIAL)

Atmospheric Sciences: aeronomy, solar, weather modification, extraterrestrial atmospheres, meteorology.

Earth Sciences: engineering geophysics, general geology, geodesy and gravity, geomagnetism, hydrology, inorganic geochemistry, isotopic geochemistry, organic geochemistry, lab geophysics, paleomagnetism, paleontology, physical geography and cartography, seismology.

Oceanography: biological oceanography, chemical oceanography, geological oceanography, physical oceanography, marine geophysics.

Other Environmental Sciences: used for multidisciplinary fields within environmental sciences.

MATHEMATICAL AND COMPUTER SCIENCES

Mathematics: algebra, analysis, applied mathematics, foundations and logic, geometry, numerical analysis, statistics, topology.

Computer Sciences: computer programming,[2] computer and information sciences (general), design, development, and application of computer capabilities to data storage and manipulation, information sciences and systems, systems analysis.

LIFE SCIENCES

Agricultural Sciences: agronomy, animal science, dairy science, food science and technology, forestry, horticulture, poultry science.

[2]Personnel employed as computer programmers should not be reported as professionals.

Biological Sciences: anatomy, bacteriology, biochemistry, biogeography, biophysics, ecology, embryology, entomology, evolutionary biology, genetics, immunology, microbiology, nutrition and metabolism, parasitology, pathology, pharmacology, physical anthropology, physiology, plant sciences, radiobiology, systematics, zoology, veterinary biology.

Medical Sciences: internal medicine, neurology, ophthalmology, preventive medicine and public health, psychiatry, radiology, surgery, veterinary medicine,[3] dentistry, pharmacy, podiatry, anesthesiology, chemotherapy, dermatology, geriatrics, nuclear medicine, obstetrics, gynecology, oncology, pediatrics, physical medicine and rehabilitation.

Other Life Sciences: all other health-related disciplines.[4]

PSYCHOLOGY

Psychology: animal behavior, clinical psychology, comparative psychology, counseling, and guidance, development and personality, educational, personnel, vocational psychology and testing, experimental psychology, ethology, industrial and engineering psychology, social psychology.

SOCIAL SCIENCES

Economics: econometrics and economics statistics, history of economic thought, international economics, industrial, labor and agricultural economics, macroeconomics, microeconomics, public finance and fiscal policy, theory, economic systems and development.

Political Science: regional studies, comparative government, history of political ideas, international relations and law, national, political and legal systems, political theory, public administration.

Sociology: comparative and historical, complex organizations, culture and social structure, demography, group interactions, social problems and social welfare, sociology theory.

Other Social Sciences: cultural anthropology, criminology, history of science, linguistics, socioeconomic geography, urban studies.

[3]Institutions with schools of veterinary medicine should distribute professionals among the appropriate disciplines (agricultural, biological, and medical) rather than report all personnel as medical scientists.

[4]*Exclude* personnel primarily involved in direct patient care.

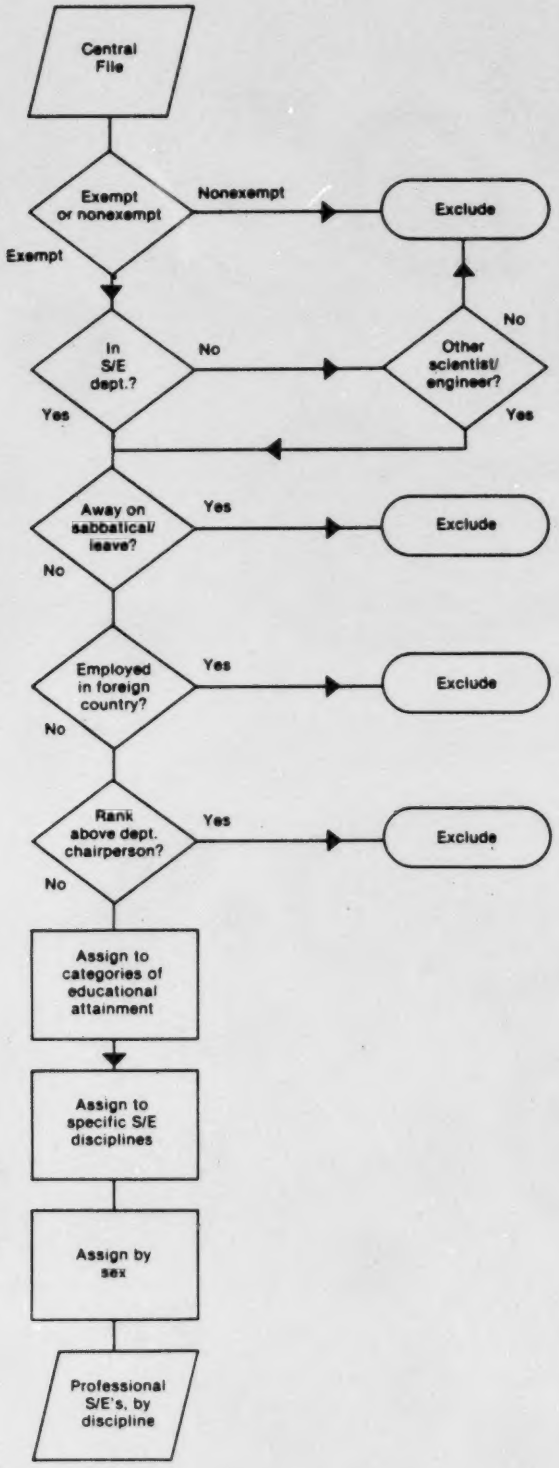
NOTE: See enclosed NSF Crosswalk between NSF field of S/E codes and the NCES Classification of Instructional Programs.

Flow Charts

Institutions that automate NSF survey data or plan to—or even engage in manual data processing—may be assisted by these charts.

STEP 1:

Retrieve, sort, and select information from central records of institution.



Central File: Contains centralized records for all paid employees. (*Note:* Some affiliated entities such as medical schools may have their own central files. See below.) Examples: Personnel, payroll, or general financial records.

Select personnel exempt from Fair Labor Standards Act. (See section 3 in Instructions.)

Select scientists and engineers (include postdoctorates) by "home" department. Exception: if "home" department is not science or engineering, and person holds joint appointment in S/E department.

See section 3 in Instructions.

See section 3 in Instructions.

See section 3 in Instructions.

See section 6 in Instructions.

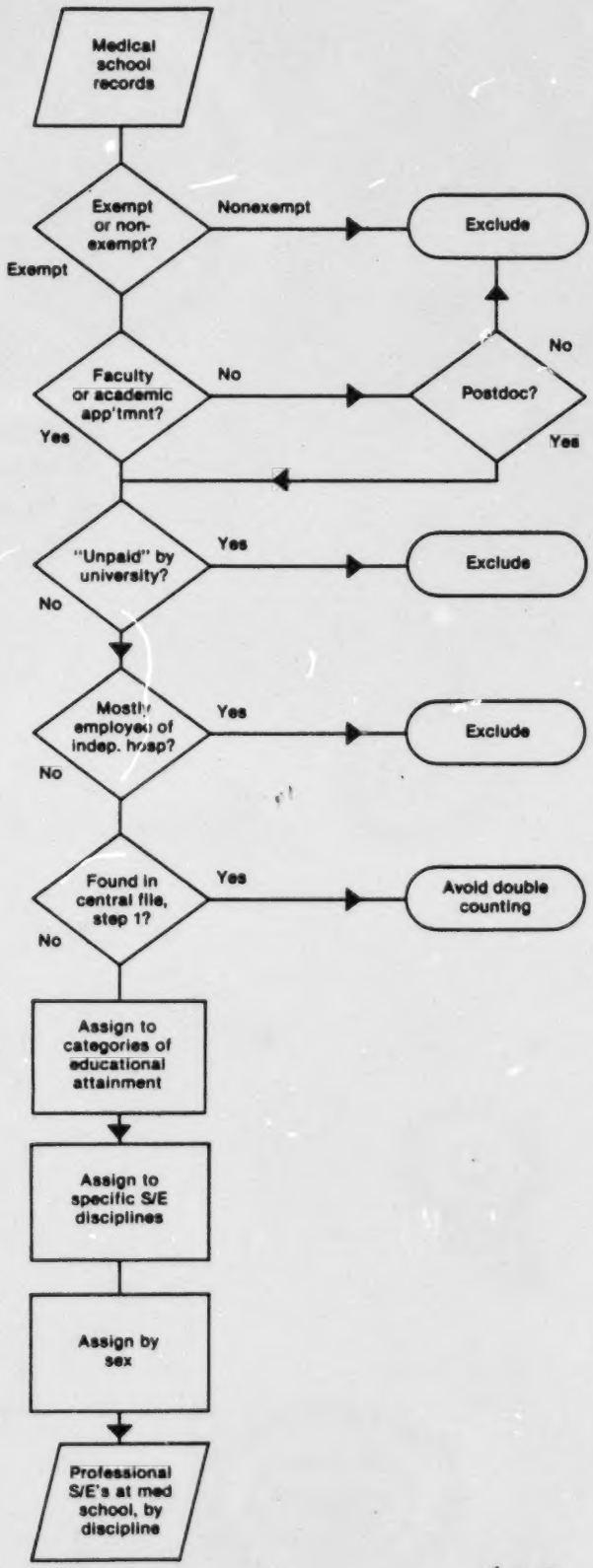
Assign to appropriate disciplines.

See section 7 in Instructions.

At this point you have extracted file containing all professional scientists and engineers covered by central records (but may be limited to those assigned to academic S/E departments in the institution proper).

STEP 2:

Collect information for medical school (if any) if not covered by central file of institution.



Refer to discussion of medical schools (section 5 in Instructions).

Select personnel exempt from Fair Labor Standards Act. (See section 3 in Instructions.)

Do not include medical school personnel unless they have faculty or academic appointments. Exceptions: postdoctorates. (See section 5 in Instructions.)

Exclude personnel "unpaid" by the university even if paid by the medical school. Exclude voluntary staff.

Scientists whose primary employment is at independent hospitals are to be excluded even if they perform teaching/research for your institution through cooperative agreements.

Some individuals may be included in both the institution's central records and the medical school records. Count such persons only once, but keep track of split assignments for FTE figures, below.

(See section 6 in Instructions.

Assign to appropriate disciplines.

See section 7 in Instructions.

STEP 3:

Collect information on any remaining affiliated entities not covered by files already processed. Such entities might include a regional campus, a computer center, an agricultural experiment station or an associated research unit (except for FFRDC's), etc. Also check for postdoctorates not included in central files (see footnote to section 3 in Instructions.)

{See section 1 in Instructions.

{Select personnel exempt from Fair Labor Standards Act. (See section 3 in Instructions.)

{See discussions in sections 3 and 4 in Instructions.

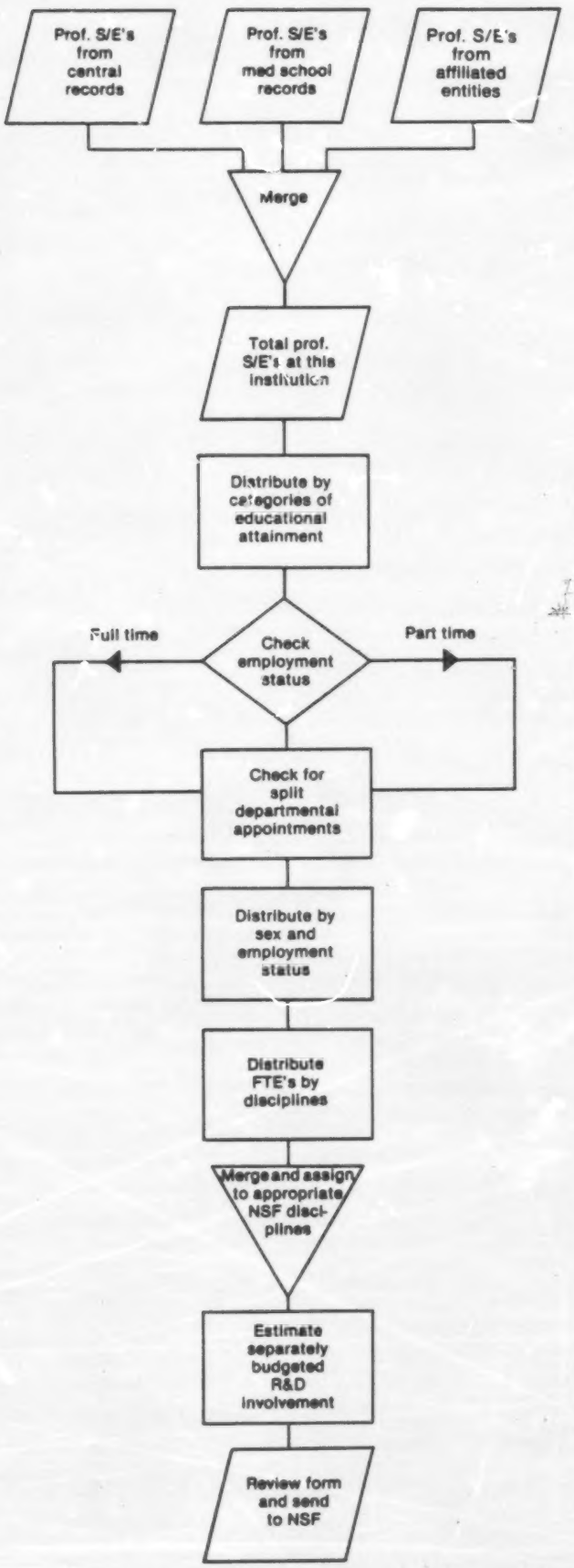
{Note exclusions listed in section 3 in Instructions (e.g., exclude personnel away on sabbatical and voluntary staff.)

{Some individuals may be included in both the institution's central records and the affiliated entity's files (e.g., a person teaching at both the main and a regional campus). Only count such persons once, but keep track of split assignments for FTE figures, below.

{See section 6 in Instructions.

{Assign to appropriate disciplines.

{See section 7 in Instructions.


Prof. S/E's from central records
Prof. S/E's from med school records
Prof. S/E's from affiliated entities
Merge
Total prof. S/E's at this institution
Distribute by categories of educational attainment
Full time
Check employment status
Part time
Check for split departmental appointments
Distribute by sex and employment status
Distribute FTE's by disciplines
Merge and assign to appropriate NSF disciplines
Estimate separately budgeted R&D involvement
Review form and send to NSF

STEP 4:

Merge all extracted information, compute full-time-equivalents in each discipline for both full-time and part-time personnel, and determine extent of separately budgeted R&D involvement.

If duplicate entries have not already been eliminated, it may be convenient to do so at this stage.

Data required for item 1 have now been collected.

Use institutional definition for "part-time" employees. (See also discussion of "full time" in section 6 in Instructions.)

FULL TIME: Check for personnel assignments which are split across several disciplines. (See section 8 in Instructions.)

PART TIME: Use institutional conventions or practices to convert numbers of part-time personnel to the equivalent number of full-time individuals in each discipline. (See section 8 in Instructions.)

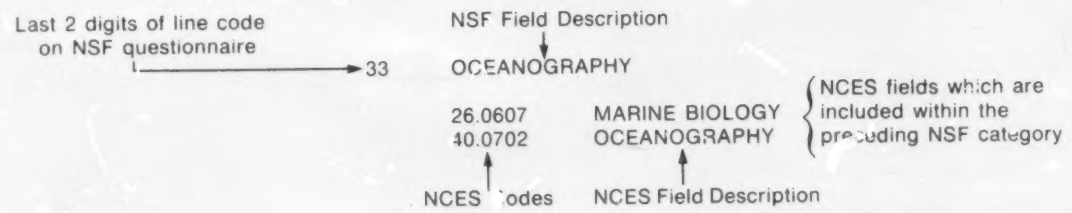
Data required for item 2 have now been collected.

For all personnel, determine the proportion of time spent in separately budgeted R&D programs. Use institution's conventions or data from faculty activity analyses, salaries paid from research funds, etc. (See section 8 in Instructions.)

Data required for item 3 have now been collected.

CROSSWALK BETWEEN NSF FIELD OF SCIENCE/ENGINEERING CODES AND THE NCES CLASSIFICATION OF INSTRUCTIONAL PROGRAMS

SAMPLE LISTING:



10 ENGINEERING, TOTAL

11 AEROSPACE
- 14.02 AEROSPACE, AERONAUTICAL, AND ASTRONAUTICAL ENGINEERING

12 CHEMICAL
- 03.0406 PULP AND PAPER PRODUCTION
- 03.0509 WOOD SCIENCE
- 14.07 CHEMICAL ENGINEERING
- 14.25 PETROLEUM ENGINEERING

13 CIVIL
- 14.02 ARCHITECTURE
- 14.04 ARCHITECTURAL ENGINEERING
- 14.08 CIVIL ENGINEERING
- 14.14 ENVIRONMENTAL HEALTH ENGINEERING

14 ELECTRICAL
- 14.09 COMPUTER ENGINEERING
- 14.10 ELECTRICAL, ELECTRONICS, AND COMMUNICATIONS ENGINEERING

15 MECHANICAL
- 14.11 ENGINEERING MECHANICS
- 14.19 MECHANICAL ENGINEERING

16 OTHER ENGINEERING
- 14.01 ENGINEERING, GENERAL
- 14.03 AGRICULTURAL ENGINEERING
- 14.05 BIOENGINEERING AND BIOMEDICAL ENGINEERING
- 14.06 CERAMIC ENGINEERING
- 14.12 ENGINEERING PHYSICS
- 14.13 ENGINEERING SCIENCE
- 14.15 GEOLOGICAL ENGINEERING
- 14.16 GEOPHYSICAL ENGINEERING
- 14.17 INDUSTRIAL ENGINEERING
- 14.18 MATERIALS ENGINEERING
- 14.20 METALLURGICAL ENGINEERING
- 14.21 MINING AND MINERAL ENGINEERING
- 14.22 NAVAL ARCHITECTURE & MARINE ENGINEERING
- 14.23 NUCLEAR ENGINEERING
- 14.24 OCEAN ENGINEERING
- 14.27 SYSTEMS ENGINEERING
- 14.28 TEXTILE ENGINEERING
- 14.99 ENGINEERING, OTHER
- 19.0901 TEXTILE AND CLOTHING
- 30.03 ENGINEERING & OTHER DISCIPLINES
- 30.06 SYSTEMS SCIENCE
- 40.0701 METALLURGY

20 PHYSICAL SCIENCES, TOTAL

21 ASTRONOMY
- 40.02 ASTRONOMY
- 40.03 ASTROPHYSICS
- 40.09 PLANETARY SCIENCE

22 CHEMISTRY
- 40.05 CHEMISTRY

23 PHYSICS
- 40.08 PHYSICS

24 OTHER PHYSICAL SCIENCES
- 40.0799 MISCELLANEOUS PHYSICAL SCIENCE, OTHER
- 40.01 PHYSICAL SCIENCES, GENERAL
- 40.99 PHYSICAL SCIENCES, OTHER

30 ENVIRONMENTAL SCIENCES, TOTAL

31 ATMOSPHERIC
- 40.04 ATMOSPHERIC SCIENCE & METEOROLOGY

32 EARTH
- 40.06 GEOLOGICAL SCIENCES

33 OCEANOGRAPHY
- 26.0607 MARINE BIOLOGY
- 40.0702 OCEANOGRAPHY

34 OTHER ENVIRONMENTAL SCIENCES

40 MATHEMATICAL SCIENCES, TOTAL

41 MATHEMATICS
- 06.1302 OPERATIONS RESEARCH (QUANTITATIVE METHODS)
- 27 MATHEMATICS

42 COMPUTER SCIENCE
- 06.12 MANAGEMENT INFORMATION SYSTEMS
- 11 COMPUTER & INFORMATION SCIENCE, GENERAL

49 MATHEMATICAL SCIENCE, OTHER

50 LIFE SCIENCES, TOTAL

51 AGRICULTURAL
- 01.03 AGRICULTURAL PRODUCTION
- 01.0303 AQUACULTURE
- 01.07 INTERNATIONAL AGRICULTURE
- 02 AGRICULTURAL SCIENCES
- 03 RENEWABLE NATURAL RESOURCES
- 04.06 LANDSCAPE ARCHITECTURE

52 BIOLOGICAL

18.0201	CLINICAL ANATOMY
18.0202	CLINICAL BIOCHEMISTRY
18.0203	CLINICAL MICROBIOLOGY
18.0204	CLINICAL PATHOLOGY
18.0205	PHYSIOLOGY
18.06	EPIDEMIOLOGY
18.1002	ALLERGIES AND ENDOMOLOGY
18.1009	IMMUNOLOGY
18.1018	PATHOLOGY
18.23	TOXICOLOGY (CLINICAL)
19.05	FOOD SCIENCE & HUMAN NUTRITION
20.0108	FOOD AND NUTRITION
26.0302	BACTERIOLOGY
26.0601	ANATOMY
26.0602	BIOMETRICS AND BIOSTATISTICS
26.0603	ECOLOGY
26.0604	EMBRYOLOGY
26.0606	HISTOLOGY
26.0609	NUTRITIONAL SCIENCES
26.0610	PARASITOLOGY
26.0612	TOXICOLOGY
26.0699	MISCELLANEOUS SPECIALIZED AREAS/ LIFE SCIENCE/OTHER
26.0701	ZOOLOGY
26.0702	ENTOMOLOGY
26.0703	GENETICS, HUMAN AND ANIMAL
26.0704	PATHOLOGY, HUMAN AND ANIMAL
26.0705	PHARMACOLOGY, HUMAN AND ANIMAL
26.0706	PHYSIOLOGY, HUMAN AND ANIMAL
26.0799	ZOOLOGY, OTHER
26.01	BIOLOGY, GENERAL
26.02	BIOCHEMISTRY AND BIOPHYSICS
26.03	BOTANY
26.04	CELL AND MOLECULAR BIOLOGY
26.05	MICROBIOLOGY
42.14	PSYCHOPHARMACOLOGY

53 MEDICAL

18.0299	BASIC CLINICAL HEALTH SCIENCES, OTHER
18.04	DENTISTRY
18.08	HEMATOLOGY
18.1001	MEDICINE, GENERAL
18.1003	ANESTHESIOLOGY
18.1004	COLON AND RECTAL SURGERY
18.1005	DERMATOLOGY
18.1007	FAMILY PRACTICE
18.1008	GERIATRICS
18.1010	INTERNAL MEDICINE
18.1011	NEUROLOGICAL SURGERY
18.1012	NUCLEAR MEDICINE
18.1013	OBSTETRICS AND GYNECOLOGY
18.1014	OPHTHALMOLOGY
18.1015	ORTHODONTIC SURGERY
18.1016	ORTHOPEDIC
18.1017	OTORHINOLARYNGOLOGY/ OTOLARYNGOLOGY
18.1019	PEDIATRICS
18.1020	PHYSICAL MEDICINE & REHABILITATION
18.1021	PLASTIC SURGERY
18.1022	PREVENTIVE MEDICINE
18.1023	PSYCHIATRY
18.1024	NEUROLOGY
18.1025	RADIOLOGY
18.1026	SURGERY
18.1027	THORACIC SURGERY
18.1028	UROLOGY
18.1099	MEDICINE, OTHER
18.1106	PSYCHIATRY/MENTAL HEALTH
18.12	OPTOMETRY
18.13	OSTEOPATHIC MEDICINE
18.14	PHARMACY
18.15	PODIATRY
18.24	VETERINARY MEDICINE
20.0102	CHILD DEVELOPMENT CARE AND GUIDANCE
26.0605	ENDOCRINOLOGY
26.0608	NEUROSCIENCES
26.0611	RADIOBIOLOGY

54 OTHER LIFE SCIENCES

17.0807	OCCUPATIONAL THERAPY
17.0813	PHYSICAL THERAPY
17.0821	SPEECH-LANGUAGE PATH/AUDIOLOGY
17.0899	REHABILITATION SERVICES, OTHER
17.99	ALLIED HEALTH, OTHER
18.01	AUDIOLOGY AND SPEECH PATHOLOGY
18.07	HEALTH SCIENCES ADMINISTRATION
18.09	MEDICAL LABORATORY
18.11	NURSING
18.22	PUBLIC HEALTH LABORATORY SCIENCE
18.99	HEALTH SCIENCES, OTHER
26.99	LIFE SCIENCES, OTHER

60 PSYCHOLOGY

13.08	SCHOOL PSYCHOLOGY
17.0801	ART THERAPY
42	PSYCHOLOGY

70 SOCIAL SCIENCES, TOTAL

71 ECONOMICS

01.0103	AGRICULTURAL ECONOMICS
06.05	BUSINESS ECONOMICS
45.06	ECONOMICS

72 POLITICAL SCIENCE

44.01	PUBLIC AFFAIRS, GENERAL
44.03	INTERNATIONAL PUBLIC SERVICE
44.04	PUBLIC ADMINISTRATION
44.99	PUBLIC AFFAIRS, GENERAL
44.05	PUBLIC POLICY STUDIES
45.09	INTERNATIONAL RELATIONS
45.10	POLITICAL SCIENCE & GOVERNMENT

73 SOCIOLOGY

18.16	POPULATION & FAMILY PLANNING
45.05	DEMOGRAPHY
45.11	SOCIOLOGY

74 OTHER SOCIAL SCIENCES

04.03	CITY, COMMUNITY & REG/PLANNING
05	AREAS AND ETHNIC STUDIES
06.06	HUMAN RESOURCES DEVELOPMENT
06.15	ORGANIZATIONAL BEHAVIOR
14.26	SURVEYING & MAPPING SCIENCES
42.12	PSYCHOLINGUISTICS
43.01	CRIMINAL JUSTICE
44.02	COMMUNITY SERVICES
44.07	SOCIAL WORK
45.01	SOCIAL SCIENCES, GENERAL
45.02	ANTHROPOLOGY
45.03	ARCHEOLOGY
45.04	CRIMINOLOGY
45.07	GEOGRAPHY
45.12	URBAN STUDIES
45.99	SOCIAL SCIENCES, OTHER

80 OTHER SCIENCES, TOTAL (not elsewhere classified)

other science resources publications

Science Resources Studies Highlights

R&D Funds

	NSF No.	Price
Significant Increase Expected in Industrial R&D Performance of Federal R&D Programs in FY 1983	82-329	-----
Growth in Federal basic Research Support in 1980-83 Moves at Slower Rate than in Previous Four Years	82-325	-----
Companies Plan R&D Expenditure Increases for 1983—Growth Rate Down	82-324	-----
Defense Leads R&D Growth in FY 1983—Energy and Natural Resources and Environment Fall Sharply	82-322	-----
Universities Spent 6% of Separately Budgeted R&D Expenditures for Research Equipment in 1980	82-316	-----
National R&D Expenditures Expected to Reach $85 Billion in 1983	82-311	-----

S/E Personnel

Projected Employment Scenarios Show Possible Shortages in Some Engineering and Computer Specialties	83-307	-----
Manufacturing Employment Becoming Increasingly More Technological	83-303	-----
Growth in Science and Engineering Employment Accelerated in 1980 to 1981—But Demand May Have Slackened in 1982	83-300	-----
Labor Market Slackens for New Science and Engineering Graduates	82-330	-----
Growth in Employment of Science and Engineering Continues, Led by Computer Scientists	82-328	-----
Science/Engineering Doctorate Production Increases in 1981, More New Doctorates Seek Nonacademic Positions	82-323	-----
Employment of Recent Science and Engineering (S/E) Graduates in S/E Fields Increased	82-320	-----
Labor Markets for New Science and Engineering Graduates in Private Industry	82-310	-----
Growth in Scientific and Engineering Employment Slows Between 1978-80	82-303	-----
Engineering Colleges Report 10% of Faculty Positions Vacant in Fall 1980	81-322	-----
Science and Engineering Faculty With Recent Doctorates Fell to One-Fifth of Total in 1980	81-318	-----
University S/E Faculty Spend One-Third of Profession Time in Research	81-317	-----

Detailed Statistical Tables

R&D Funds

Federal Funds for Research and Development, Fiscal Years 1981, 1982, and 1983, Volume XXXI	82-326	-----
Research and Development in Industry, 1980	82-317	-----

S/E Personnel

Characteristics of Doctoral Scientists and Engineers in the United States: 1981	82-332	-----
U.S. Scientists and Engineers: 1980	82-314	-----
Characteristics of Recent Science/Engineering Graduates: 1980	82-313	-----
Scientists, Engineers, and Technicians in Private Industry, 1980	81-329	-----
Federal Scientific and Technical Personnel: 1976, 1977, and 1978	81-309	-----
Scientists and Engineers From Abroad, 1976-78	80-324	-----

Reports

R&D Funds

Trends to 1982 in Industrial Basic Research	83-302	In press
Federal R&D Funding for Energy, Fiscal Years 1971-83	83-301	-----
Federal Funds for Research and Development, Fiscal Years 1980, 1981, and 1982, Volume XXX	82-321	$4.75
1990 R&D Funding Projections	82-315	$3.50

S/E Personnel

Changing Employment Patterns of Scientists, Engineers, and Technicians in Manufacturing Industries: 1977-80	82-331	-----
Science and Engineering Degrees: 1950-80, A Source Book	82-307	$5.00
Women and Minorities in Science and Engineering	82-302	$7.00
Activities of Science and Engineering Faculty in Universities and 4-Year Colleges, 1978/79	81-323	-----
Young and Senior Science and Engineering Faculty, 1980	81-319	-----
Foreign Participation in U.S. Science and Engineering Higher Education and Labor Markets	81-316	$4.50
Science and Engineering Employment: 1970-80	81-310	$2.75
The Stock of Science and Engineering Master's Degree Holders in the United States	81-302	-----

Composite

National Patterns of Science and Technology Resources, 1982	82-319	$5.00
Science and Engineering Personnel: A National Overview	82-318	$5.00